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ABSTRACT

Thirty papers from a 1980 University of Arizona conference on higher education financing policies and the state government-college relationship are presented. Papers and authors include the following: "Higher Education Financing Policies: A Context" (Ernest Boyer); "The State Board Perspective" (William Arceneaux); "The Chief Institutional Finance Officer Perspective" (James Brinkerhoff); "Indexing Tuition to Cost of Education: Implications for State Policy" (Dennis Viehland, Norman Kaufman, and Barbara Krauth); "Designing State Student-Aid Policies for the 1980s" (Jane Louise Johnson); "Budgeting for Enrollment Decline: The Indiana Experience" (Charles Seitz); "Budgeting for Enrollment Decline: The Virginia Experience" (Robert Schultze); "Budgeting for Enrollment Decline: The Ohio Experience" (George Baughman); "Managing Fiscal Crisis: The California Experience" (William Pickens); "Managing Fiscal Crisis: The Wisconsin Experience" (George Hyer); "Managing Fiscal Crisis: The University of Washington Experience" (Robert Thompson); "Information Needs for Budgetary Analysis: The University of Houston Experience" (Frank Brown); "Incentive Budgeting" (David Berg); "Expected Conditions and Potential Responses" (Edward Whalen); "A Plan for Improved Space Utilization" (William Fuller); "The Capital Margin" (Hans Jenny); "Factors Impact on Compensation" (Terry Peterson); "What Quality Means" (Frank Bowen); "Quality Issues: A State Perspective" (Robert Huff); "Maricopa County Community College, Arizona" (A. M. Flowers); "Fort Steilacoom Community College, Washington" (Jack Asby); "The California Study" (Frank Bowen and Lyman Glenny); and "Reducing Conflict Between State Boards and Institutions" (Larry Leslie). (SW)

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HIGHER EDUCATION FINANCING POLICIES: STATES, INSTITUTIONS AND THEIR INTERACTION

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Larry L. Leslie

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James Hyatt

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HIGHER EDUCATION FINANCING POLICIES: STATES/INSTITUTIONS AND THEIR INTERACTION

Edited by Larry L. Leslie
and James Hyatt

Center for the Study of Higher Education
College of Education
University of Arizona
Tucson, Arizona 85721

October, 1981

The editor wishes to acknowledge the contributions of the authors of the individual papers listed in the Table of Contents.

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FOREWORD

The annual finance conference held at the University of Arizona during the first week of December each year has become the major national conference on postsecondary finance. Participants come from all fifty states, from U.S. territories, and from several countries. Plans are under way to develop in 1981 special sessions for Latin-American finance officers and analysts.

The Arizona conference is unique in bringing together the major participants in the postsecondary education finance enterprise: researchers, institutional finance officers, state finance officers, finance policy analysts, legislative decision-makers, national agency personnel, and graduate students. In this, the University's Center for the Study of Higher Education enjoys the generous support of the State Higher Education Finance Officers, the In-Service Project of the Education Commission of the States, the National Association of College and University Business Officers, and the National Center for Higher Education Management Systems.

The conference has contributed to making the University's Center among the most visible university-based academic organizations in matters of postsecondary finance and financial management. Recent research efforts have been directed at such finance and finance-related topics as the relation between level of collegiate enrollments and the business cycle, the financial implications of collective bargaining, enrollment analyses of and forecasts for various categories of collegiate institutions, costing, and the financial and organizational vitality of the humanities in community colleges. Teaching thrusts have been developed in the financing of higher education and in higher education financial and business management.

The 1980 conference addressed the topic, "Higher Education Financing Policies: States/Institutions and their Interaction." The conference program capitalized upon the disparate groups represented to bridge the gap between state-level policy groups and institutional leaders with researchers and policy analysts providing much content for the discussions. Probably the most long-standing of the objectives of the Arizona conference is demonstrated here: the desire to enhance understanding and cooperation among the various players in the postsecondary financing environment through mutual

respect and direct interaction. The conference was above all a working conference in which participants shared insights they had gained through problem solving and study in their own organizations and elsewhere.

Larry L. Leslie
Professor and Director
Center for the Study of Higher Education
University of Arizona
October, 1981

PART 1
FRAMING THE POLICY ISSUES

Introduction

Following is the keynote address given by Ernest Boyer, President of the Carnegie Foundation for the Advancement of Teaching. Dr. Boyer, former United States Commissioner of Education and Chancellor of the State University of New York, brings a perspective to higher education financing policies that is unique in its combined breadth and depth of understanding. In his address Dr. Boyer devotes his attention to providing a context for matters of postsecondary financing policy.

CHAPTER 1

Higher Education Financing Policies: A Context

Ernest Boyer

A big transition has taken place in Washington recently in case you have not noticed. I recall just four years ago when I was asked if I would leave the concerns of trying to manage the hydra-headed SUNY and move to the nation's capital, a move that I not only did not anticipate but at least for several days urgently resisted. Nothing, I felt, could draw me to what I considered the circus on the Potomac. I am older and wiser now and somewhat more sympathetic to what government is trying to do.

I am impressed that across the country eager-eyed, bushy-tailed people hope their star will rise and they too will have the opportunity to save the country from the Huns and the Visigoths. I wish I had a moment with them. My main thought is captured well in a story I heard soon after moving there. The story is of a man who was lost in a jungle. Add to his woes the fact that he was being chased by a lion, and the faster he ran the faster the lion ran. He saw that his time had come; and in an act of desperation, remembering his early religious training, fell to his knees, looked toward heaven, and prayed, "Oh God, please convert this lion to a Christian." And lo and behold a miracle occurred, and the lion too stopped in its tracks, looked toward heaven, folded

its paws, and said, "Oh God, please bless this food of which we are about to partake." I do not wish to be cynical. I only remind the newcomers that it is not a question of whether they will be devoured but whether it will be by the Democrats or the Republicans, the House or the Senate, the Executive Branch or the Legislature.

The theme which brings you here is the financing of higher education. For two reasons I was given permission by your conference management to put that subject in context. First, there are those who are much more knowledgeable about the day-to-day fiscal affairs of higher education than I. I have studied the conference program with care, and I think it is a splendid lineup of theorists and practitioners who know about the business of dollars and higher education. There is however another reason that causes me to back off and ask some questions contextually. It is my observation that part of our problem in financing higher education is that we fail to understand the forces that are at work. That is, we approach the dollar issues as if somehow they are occurring out of context, that the tension points on the budget have somehow not been rooted in the realities of the context. I remember our budget crises in New York; they seemed never to end. I remember the hearings and the encounters I had with the state government budget officers. Each fall we met head-on over particular increments or occasionally decrements, and never did we have occasion to reflect on what was happening to us, what brought us to where we were, and on what we might reflect in the next five to ten years. Encounters with government because of politics tend to be short-term, tend to be built around crises.

I thought it may be appropriate, not only in terms of my own qualifications and interests but also appropriate as an opener for a conference on financing higher education, to discuss informally five trends which will have considerable impact on the area of financing in the 80s. In fact the extent to which we can manage our fiscal affairs hinges very directly on our responses to these fundamental trends.

First, I know I would disappoint you if I did not remind the audience that the trend of demography is a powerfully important variable in the financial health and well-being of higher learning in America during the decade of the 80s and into the 90s. We have heard ad nauseam that babies now born and on their way to college have declined 26 percent, and I know nothing to do about that. There is no conceivable way yet discovered for retroactive fertility, but science continues to come up with marvels so we can hope. In the short term however we do have a decline, a kind of inverse bulge, from a baby boom to a baby bust, and we have only begun to touch the margins of that. College administrators feel great enthusiasm each fall at again beating the baby decline, but in fact it has not hit them yet. We have heard about it so long we

think we are in it, and the fact that enrollments have held up for two consecutive years, two years when the decline has just begun, does not indicate we have beat the system.

From 1978 to 1980 there was a decline in the high school graduates of this country from 3.149 million to 3.048 million. That is a decline of about 100,000, only 3.2 percent. Between 1980 and 1985 that decline will sharply increase to about 17 percent. The point is simply that the dip in the potential number of high school graduates started in 1978, but it will move ahead now at galloping speed, and by 1985 we will see a considerable trough.

You have heard these figures time and time again, but my special emphasis on the shift in demography is of a different order. I believe the real challenge for higher education and all of education in the next ten to twenty years will not simply be that gross dip in enrollment. It will be a more careful understanding of changes in demography within that dip. Let me explain.

In the United States today people eighteen years of age and younger have a very different composition than they did twenty to thirty years ago when we built our systems of higher education after World War II. Among the white population in America, 27 percent are eighteen years of age and younger. Among the black population, 33 percent are eighteen years of age and younger, and among Hispanics in the United States 49 percent are eighteen years of age and younger. The simple fact is that the face of young America is changing. We are building into the educational stream a population that differs dramatically from those who came to our campuses fifteen to twenty years ago.

Fifty percent of all students enrolled in kindergarten in Los Angeles County this fall are Hispanic. They are advancing to the secondary schools, and we do not know to what extent they will be positioning themselves to enter colleges in the days ahead, particularly because dropout rates relate directly to the changing demography within this gross profile. Among the white population of America, 14 percent of students who enter first grade drop out; that is, 86 percent of white students who start the school system in America complete that system. Among blacks the dropout rate is 25 percent, and among Hispanics the dropout rate is 42 percent. Almost one of every two Hispanics who enroll in public school in this country will not complete high school. Combining these statistics, there is in the schools an increase of minorities—blacks and Hispanics—the group most likely to drop out or not prepare themselves for higher education. Built into the demography of this youth culture is a combination that has enormous implications for the organization of education and higher education in the days ahead. Studies in California show that it is not enough to look at the overall demography

decline. The only way to understand what is going to happen to higher education in California is to look at the growth in Hispanics, their dropout rates, and the fact that those who stay to graduate tend not to transfer to the University of California and the senior colleges. If they go into postsecondary education at all, they tend to go into technical institutes and two-year programs. I am convinced that one of the most profoundly important challenges for those who care, not just about the future of higher education but the future of this country, is to find a way for the educational system to be more responsive to the changing student demography which touches campuses from coast to coast.

This is not just a Southwest phenomenon. In terms of the new culture, the new Hispanic culture especially, changes are evident in the Southeast, especially in Florida and include Puerto Ricans throughout the Northeast. The challenge for those who manage education—and this obviously has dramatic implications for financing—is to find ways to anticipate a dramatic shift in the composition of students. The latest report from the Carnegie Council entitled *Three Thousand Futures* observed that by the year 1990 approximately 50 percent of the students in our classrooms at the college level will be strangers compared to those who are there today (1980, p. 53). In other words, there will be about a 50 percent turnover in the composition of the students who will be primarily women, minorities, and older students.

Even as the composition of the college age group changes, we will increasingly become an aging culture. The median age in this country continues to go up—in 1900 the life expectancy in America was forty-seven years, in 1973 the average age was seventy-one years. It is estimated that by the year 2000 one out of every three Americans will be fifty years of age or older. Not only can we not survive into the year 2000 without continued learning in an age that becomes increasingly technological, but the nature of our higher education institutions must change as we reorganize ourselves to serve a different kind of public. On one end of the spectrum, minorities—Hispanics and blacks—insist upon an education for their culture. At the other end an older population demands education to meet their needs as well as their schedules. Another campus with a library and dormitories and all the paraphernalia that constitute the traditional institutions of learning will not solve these problems. Rather a noncampus institution that can draw upon the resources already available to serve a population that does not have the time to come back to campus to live full time and occupy dormitories may be a viable alternative. There are thousands who urgently require continued learning, but we are unrealistic if we believe that the growing adult population will come back to our campuses and save our academic souls and keep the financial structures in place. We must understand the conditions that will have to be met to fulfill their specific needs, and it will not be on the terms that currently guide many of our structures. If we can find those combinations of

the new population that urgently need to be served, but on terms that will meet their expectations, we can anticipate a healthy and vital future. How will we react to the changing demography of the student in America? It goes to the heart of the question of whether we will have financial as well as educational help in the days ahead.

The second trend, profoundly important, considers how we will react to the changes in the academic preferences of students. It may be ephemeral, but we must be aware that important changes have occurred in student preferences in the last five years or so. I sit through many commencement exercises, and I see when the College of Engineering stands up, when the College of Arts and Sciences stands up, and when the College of Nursing stands up. The vocational, career-related majors are winning about two to one. In fact I have gotten a remarkably consistent response to questions on coast-to-coast studies. In about two-thirds of every graduating class this year, students are enrolled in career or vocationally-related majors. Only about one-third of the graduating class is in traditional liberal arts fields. By vocationally-related I mean journalism or computer science or health care. The more traditional liberal arts include such fields as literature and American history. The point is that in the past five to ten years there has been a dramatic shift toward career-related fields, and our colleges have responded in their efforts to attract more and more students. The interesting dilemma, however, is that the faculty has not so shifted, and on campus after campus there is a rather dramatic mismatch between the academic interests and expectations of students and the resident talent available to meet those needs. Faculty distributions are almost the reverse, with about two-thirds of the faculty in arts and science fields, and about one-third in the vocationally related. This is a time bomb, not just in the politics on campus, but in the long-term fiscal management of the institution. You cannot continue to underserve the growth and have oversupply in those fields where student enrollments continue to decline. Administrators of higher education institutions must determine how to provide a more adequate match between the resources of the institution and the new priorities of the students if they are to compete with the educational changes which will be emerging within the next ten to twenty years.

I note also a third trend which may be a real sleeper. We are not fully aware that business and industry are creating an educational system in America that is remarkably simpler in many ways than the traditional system. Several years ago *Holiday Inn Magazine* featured a cover story on Holiday Inn University. Initially I was skeptical, but Holiday Inn has in fact built its own campus for employees. I happen to think the word *university* in that context is a bit of a sacrilege; I wish the term were held more reverently, but that is just the beginning. McDonalds Corporation now has a Big Mac U in which they train their employees.

There are very serious efforts at a different level as well. IBM this year has about the equivalent of a 30,000 student university if you aggregated all the education they are giving and equated it in what would amount to full-time student loads. They are training students in programs ranging from computer programming to advanced research. IBM is now successfully competing with universities for advanced doctorates in the most esoteric sciences. So while we can chuckle a bit at Big Mac U training employees to wrap hamburgers, we cannot be so casual about the serious business and industry effort to bring the best intellectual talent within their umbrella to train and develop in exotic fields of research which historically universities in this country assumed to be their special province.

Students come to our campuses to be educated in the best sense, but they also come for socialization. Many of them today are coming out of the practical desire to get certified. They know they must have certification in this culture to move ahead, and we offer that. I suspect if we ever lose the monopoly on certification that the so-called deregulation business will put us in an enormously more complicated position. Now the straws are in the wind. Arthur D. Little, a distinguished consultant management firm, has received an accredited master's degree program. I do not suggest this was inappropriate, rather I am suggesting that one of the most powerfully important trends in the next ten to twenty years will be the possibility of a tremendous array of alternative educational institutions emerging, rooted in many instances to legitimate businesses and industries offering courses similar to the ones we offer today. Then the question will arise, where do we fit into this partnership? Are we in fact competing? If we are, I suspect we will lose.

This raises the question of the role of the traditional university and college at a time when we will become increasingly more inclined to have a multiple service rather than the traditional service available, and it is an implication of tremendous significance. We have a change in the composition of students, and we have a change in the attitudes toward the academic majors students want. Thirdly, there is a change in our society regarding who the teachers are and what the influential institutions are, and that is going to have a major influence on the future of higher education.

Years ago school was held in great respect, and institutionalized learning was a dominant feature for a large segment of the establishment. I do not sense that reverential relationship today. Social conditions have changed causing the students to be considerably more cynical and hard-headed about the nature of the institutions we direct. A survey conducted just several months ago went as follows: in 1960 high school students were asked what influenced them the most. Parents were first, and school teachers were second or third. Church was highly rated, and television was eighth or tenth. The

same question asked twenty years later, in 1980, revealed peers, not parents, was number one, number three was television, and teachers were number four. This trend is of enormous importance to those who guide education. Young people in this culture are being taught more by the nonformal teachers of our culture who are more normative and less value oriented than by the formal teachers.

In the next ten years about 40 percent of school children will be from single-parent homes. In a study just completed by secondary school principals, such children are shown to perform at an average grade level or one grade level below children from two-parent families. They are in fact securing their value structure from outside the traditional structures we call family and school. I am suggesting that technology today is the greatest teacher, and we must acknowledge that it has been developed to an extent that we may find in the next ten to twenty years a technological revolution of learning that will have enormous influence on the financing of postsecondary education.

The computer game business is now a $3 billion industry, and the multiple tracts through television will make it possible to learn almost anything at almost any place. The impact of certain programs such as *Cosmos* seems to be in teaching general education more interestingly if not more effectively than many of our own general education courses. Within the next ten to twenty years we will have to confront the issue of alternate teachers in our culture. For those who are trying to finance postsecondary education the question is: does it offer us a boom, or will it be a destruction? One could dream of the day when we become more economical and still more effective by combining good classroom teachers with great technology. If we are resistant to that dream, we may find ourselves overwhelmed by the alternate teachers who have captured the imagination of the coming generation.

Other trends will impact strongly on the future financing of higher education. Politics, government, the courts, and social trends will influence internal management. Howard Bowen's new book, *The Cost of Higher Education,* discusses brilliantly the long list of what he calls socially imposed costs of higher education including social security taxes, workers' pensions, minimum wage laws, provisions for workers' safety, pollution abatement, public information, antidiscrimination laws, and protection of the handicapped (Bowen, 1980, pp. 76-100). Such costs have moved from the social conscience of the nation into the internal management of institutions, and it has had a profound fiscal and organizational impact. Bowen estimates that the increase in annual expenditures due to socially imposed costs during the last twenty years is $3.5 to $4 billion or roughly 7 to 8 percent of the total current expenditures of higher education. He explains that these increased external demands may lead not only to increased costs but may in fact lead to

shifts in priority within the institution owing to limited resources (Bowen, 1980, p. 97). That is, one simply ends up with reallocation.

> *When social or governmental intervention imposes new programs and activities upon organizations it does not necessarily follow that aggregate cost will be increased. Such intervention may merely change the priorities of the organization causing a substitution of a new program for an old one with the total cost unchanged* (Bowen, 1980, p. 80).

For example, if higher education had not been required to meet the specifications of OSHA, introduce ethnic studies, or follow affirmative action, the same money might have been spent to raise faculty/student ratios, expand libraries, or build a new sports arena. The amount of money available to spend would not necessarily have been greater because of the imposed social costs. Similarly, when administrators and faculty members are called upon to assemble statistics, prepare reports, entertain site visitors, negotiate, lobby, and read government regulations, these activities may not increase aggregate expenditures but may merely divert staff time and energy from accustomed work to new tasks. In other words, these new demands may change the priorities but not necessarily increase aggregate costs.

This is one of the most fundamental elements in trends of the last ten years or so, and I am enormously concerned that we are now indirectly changing our priorities toward the logistics of survival when in fact the elements of educational leadership are submerged as we are being forced to an agenda that is externally imposed. Of socially imposed external obligations, there is little that should be eliminated. All of them are worthy. Is it possible however that in the management and mechanisms of these procedures we are imposing on institutions time consumption, duplication, and confusing memoranda that in fact drain away creative energies that more profitably might be focused on saving the institution. The tighter the budget the greater the flexibility one needs to manage within narrow limits; yet the irony is that fiscal constraints are occurring at the very time when the external expectations are increasing. Can we in higher education and government come to terms with an arrangement that drains the creative dimension of educational management, the kind of management which may be precisely what we need to save our institutions during the decade of the 80s?

Higher education and government at both the state and federal levels are at a point of enormous instability. During the past fifteen years I have seen two extremes in higher education. At SUNY in 1965 campuses were being built, a $3 billion construction program financed through tuition was in progress, and there was unending optimism. Five years later legislators were attacking

this system that had gone mad. In five short years the pendulum had moved from total embrace to almost total rejection, rooted in, of course, the hostilities and bitterness about Vietnam, but also rooted in a budget crisis that forced people to understand that there was something to be paid. Fotunately we are not at either extreme today, but we must avoid a mentality in government characterized by benign neglect or bureaucratic intervention not rooted in any great vision embracing the value of higher education. A relationship between government and universities which becomes more like a war of nerves, a marriage that has gone sour, would deny us the kind of dynamic imagination we need in the next decade. Can we, in short, find a middle ground between surly surveillance and arrogant independence.

At the federal level, I have not seen higher education looked to as a source of national leadership. I saw more frequently consultations with constituency groups rather than consultations with the university. There has been an increasing element of disinterest and distrust. For example, the administration attempted to enact legislation creating federal accreditation for eligibility for student aid. Accreditation weakness and problems of institutional management cannot be solved by putting the federal bureaucracy in charge of institutional control. This exemplifies however the mood of distrust and surveillance by those who have little understanding of our enterprise.

The question of the next ten years is simply this: will we be able to deal with this changing attitude toward higher education in a way that will lead to administrative responsibility and institutional integrity? We can no longer talk about autonomy; none of us is autonomous, but we can talk about integrity, the development of a climate that would allow our institutions to keep the freedom they need to manage their own affairs while proving to the public that they are serving consumers in an adequate and effective way.

I have not looked at financing higher education directly, but financing is carried on in a context, and in my judgment in the next ten years there will be a student body shift to which we must respond. There will be shifts in the teachers in our culture, shifts in responsibility for education, shifts in the impact of socially imposed programs, and shifts in the relationship with government. If we are imaginative and creative and take the right tack in each of these, higher education in this country will be effective. In my optimistic moments I think this country will discover that it needs more education not less, and that if we carry our banner right we will be seen as a continuing and vital part of this society.

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PART II

HIGHER EDUCATION FINANCING POLICIES FROM FOUR PERSPECTIVES

Introduction

The design of the opening session of the conference was to follow the keynote address with statements as to how each of the four policy-making levels viewed the matter of financing policy. This panel was to be composed of four particularly eminent and articulate spokesmen recognized as national leaders. Thus, William Arceneaux, Commissioner of Higher Education for the Louisiana Board of Regents, presented perspectives from the state governing/coordinating board level; the Honorable W. Morris Farr, Member of the Arizona Senate's Appropriations and Education Committees, spoke from the legislative vantage point; David Gardner, President of the University of Utah, represented the institutional chief academic officer perspective; and James Brinkerhoff, Vice President and Chief Fiscal Officer, University of Michigan, stated his observations as one who is directly responsible for institutional financial matters. Two of these papers were selected for presentation here.

CHAPTER 2

The State Board Perspective

William Arceneaux

I was asked to participate on this panel to discuss higher education finance from the perspective of a state level higher education administrator. Inasmuch as there is no standard statewide approach to funding higher education, I can only give my personal perspective, based on my experience in Louisiana. Though budgeting mechanisms and governmental organizations differ from state to state, I hope to provide some insight into the kinds of problems and considerations associated with financing higher education at the state level.

First, the use of a systematic, statewide funding program for higher education is a relatively recent development in Louisiana. Until the Board of Regents was created, there was no statewide authority capable of administering and enforcing so comprehensive a program. Prior to 1975, Louisiana operated nineteen public colleges and universities under the direction of two constitutional boards. The seven campuses of the Louisiana State University system had its own governing board, the LSU Board of Supervisors, while all other public education institutions—elementary, secondary, and postsecondary—were managed by the State Board of Education.

Obviously, it would have been preferable in this pre-1975 era had all institutions observed the same budgeting mechanisms, regardless of management board affiliation. This was not the case. For Louisiana, however, the problem of financial coordination was greater still, for there was little uniformity in budgeting even among institutions under the direction of the same management board.

Over the years, many institutions had tailored their accounting methods to their own specific needs—a practice which was workable enough for the individual campuses but which made comparison and coordination among institutions next to impossible. Add to this diversity the governing boards' limited authority in the realm of finance as demonstrated by their lack of control of the funding process. Campus heads whose budget requests were cut by their governing boards could, and frequently did, take the same requests to their respective legislative delegations, who could be depended upon to support any request which expanded the educational opportunities of their constituents. To that extent, the amount of state funding awarded to various institutions was as much a testament to the political strength of the schools' legislative delegations as to the financial judgment of their governing boards.

I do not mean to imply that campus heads willfully circumvented the recognized budgeting process or that legislators conspired to unsurp the financial authority of the governing boards. Every state at some time has had to cope with well-intentioned educators and elected officials intent on advancing the cause of their favorite institutions. What is important is that the lack of direction in higher education finance eventually became so pervasive that once recognized it inspired the state to take steps to initiate the strong centralized system of higher education financial management in Louisiana today.

Louisiana's current constitution, which has been in effect since 1975, provides for four higher education boards, three of which are governing bodies with management authority over their respective university systems. The fourth, the Board of Regents, is a statewide coordinating and planning body with authority over all public higher education. The Regents' duties and

responsibilities in financing higher education are very explicit. The Constitution stipulates that the Board of Regents must review the operating and capital outlay budgets of all public institutions and recommend to the legislature and the governor the level of funding that each campus should receive. The Constitution also requires the Board of Regents to develop and maintain a funding formula which the institutions must follow in compiling their annual budgets.

It is important to emphasize that while the Board of Regents has the constitutional authority to establish and enforce statewide funding policies and procedures, only the institutions, under the guidance of their respective management boards, have the authority to compile and administer the budgets. The Constitution makes a very fine yet very important distinction between the management functions of the institutions and their governing boards and the coordinating authority of the Board of Regents. By deliberately excluding the Regents from the day-to-day administration of the campuses, the authors of the Constitution attempted to insulate the Board and thus preserve its status as an impartial statewide authority with no predisposition toward any one campus or system.

To administer a successful statewide financial management program, requires the confidence and cooperation of state government and higher education institutions. That kind of confidence and cooperation is best achieved when the statewide board is able to move equally well within two worlds, simultaneously maintaining its identity as the arm of state government with authority over all higher education and yet identifying with and functioning as an extension of the academic community itself. When the Board of Regents was created in 1975, there were those who questioned its ability to maintain both identities. Some educators feared the agency would come to represent the epitome of government intrusion into the academic sphere while others wondered whether the Board's primary involvement in financial matters would be to serve as a state-sanctioned lobbyist for higher education, doing little more than raising money for colleges and universities.

Certainly, one of the Board's first priorities was to increase state support for higher education, but there was ample justification for that. Nine years ago Louisiana was ranked last among the fifty states in terms of increased state support for higher education. In fact, Louisiana's funding per FTE student was so low that when the Regents first recommended a level of funding for Louisiana, they set their sights on a very modest yet attainable goal: to achieve the average level of funding among the fourteen Southern Regional Education Board states.

The Board of Regents recognized that the key to improving educational quality was to improve the financial base of Louisiana institutions of higher

learning. They also realized that it was not enough simply to demand more money of the Legislature. The support of quality education was a public responsibility to be shared by the state government and the institutions alike, and it was the Board of Regents' responsibility to see that each carried its share of the burden.

To gain the confidence of state officials and persuade them of the extent of state support needed, the Board of Regents determined that it would have to develop a detailed and uniform statewide accounting system capable of generating statistical documentation for every dollar requested. Such a system would have the added benefit of increasing the accountability of higher education expenditures by providing a means of ensuring that every dollar appropriated was spent for the purpose for which it was intended.

The kind of task the Regents had set for themselves was easier said than done. It is very difficult to pursuade a campus business officer to abandon the accounting methods he/she has used for years—not that there was anything particularly wrong with what was being done, but because the methods did not conform with the accepted practice among other institutions. Moreover, the institutions' tenacity in clinging to their long-established methods of accounting was something more than a dedication to habit. Educational institutions traditionally have guarded their autonomy by restricting the amount and type of information given to government officials. In requesting that the institutions supply extensive and detailed documentation of their financial transactions, the Board of Regents understandably encountered a considerable amount of resistance on the part of the institutions.

Resistance notwithstanding, the Board of Regents set about standardizing the various budgeting practices and accounting systems of all nineteen public institutions—a project which, though for the most part completed within two years, continues even today. The Regents' finance and data processing staffs have succeeded in developing standardized, computerized reporting models for virtually every category of financial information and have compiled a voluminous inventory of every major building, land holding, and piece of equipment on every public campus in Louisiana. All of these computer files and inventories have proved invaluable to the Regents in developing and enforcing the budgetary guidelines contained within the *State Appropriation Formula,* the Regents' funding formula for higher education.

At the same time the Board of Regents was compiling documentation for increased state support, it also was working to ensure that the institutions carried their share of the financial responsibility by attempting to increase the amount of tuition and fees charged by each institution. Again, the Regents encountered opposition from the colleges, which traditionally have kept their tuition as low as possible to encourage public access. The Board remained

convinced, however, that students should pay a greater share of the actual cost of their education and wrote a tuition goal into its master plan for higher education recommending that tuition and fees be increased to the level where students contributed one dollar for every three dollars contributed by the state.

The assessment of tuition and fees is considered a management function, and inasmuch as Louisiana's Constitution reserves authority for all management functions for the three higher education governing boards, the Regents have been able only to recommend tuition increases. Those increases have been slow in coming, but some progress has been made. In 1975 Louisiana was ranked forty-eighth in the nation in terms of the amount of tuition and fees charged by public universities. By 1979 the state had moved up to number forty in that ranking.

In every action the Board of Regents takes—whether it is recommendations to increase tuition or stipluations that certain budgetary practices be followed—the Board has always done its utmost to act impartially toward all colleges and universities. It has never professed to treat them equally however. That may seem an odd statement, but there is no such thing as equality in finance at the state level—even among institutions. The Board of Regents oversees nineteen public campuses across Louisiana: junior colleges as well as a comprehensive university, two-year-old campuses and one-hundred-year-old institutions, schools whose enrollments range from 800 to nearly 28,000, and whose academic offerings range from occupational fields to the professions. The diversity among institutions is so great that to treat all equally would be to shortchange some while overcompensating others. For that reason the Board has always been very adamant in its commitment to *equitable* as opposed to *equal* funding for all colleges and universities.

The State Appropriation Formula, the Regents' funding formula for higher education, is built on the principle of equitable funding for all public institutions and is considered so important to the proper coordination of higher education that it has been written into the state Constitution.

In 1975 when the state first authorized the Board of Regents to develop a higher education funding formula, its primary motive was to take the politics out of budgeting practices and ensure "equal funding" of all institutions. The formula the Board developed and implemented at that time ensured that the concept of "equal funding," would mean not *equal treatment,* but *equitable funding.*

In devising a formula for the equitable funding of all institutions, we found equitability more elusive than we had imagined. The problem encountered,

and since largely overcome, is the same problem that has confronted most states which have attempted to initiate formula funding—the inability of most formulas to meet the financial needs of schools whose enrollments are declining.

Like most funding formulas developed during the mid-1970s, Louisiana's first State Appropriation Formula was almost exclusively SCH-driven; in other words, the amount of funding each institution received was based primarily on the total hours of instruction generated. Schools whose enrollments were on the upswing naturally experienced a concurrent increase in SCH production and were rewarded with funding increases. Inasmuch as college enrollments, statewide, grew throughout the 1970s, the majority of Louisiana institutions were well served by the formula and favored the continuation of SCH weighting. Unfortunately some schools did experience declining enrollments and would have faced possible reductions in funding had the Board of Regents not taken steps to ensure the continued financial and academic viability of these institutions.

To protect institutions with declining enrollments from receiving unwarranted budget cuts, the Board of Regents has observed the policy that in submitting their annual budget requests to the Regents, no institutions need request less funding than they received the preceding fiscal year. Although the Board's policy has attracted some criticism to the effect that funding should be reduced in such instances commensurate with the reduction in instruction, the Board has been able to demonstrate that a decline in enrollments does not necessarily precipitate a comparable reduction in the expenses of the institution. Certain basic operating expenses such as utilities, personnel support services, and debt retirement remain relatively constant, even in the face of moderate enrollment declines.

To assist further all institutions, not just those with declining enrollments, in their common struggle to keep pace with rapid escalation in fixed costs, the Board of Regents has introduced an inflation factor into the formula process. The inflation factor governs the distribution of all new dollars appropriated for higher education purposes by ensuring that the first new dollars awarded will be distributed equally among all colleges and universities to offset the impact of inflation. Were it not for the inflation factor, all new funding would go directly to those institutions whose enrollments (and therefore SCH production) had increased over the preceding year.

In expanding the formula to include an inflation factor and various other financial mechanisms to ensure equitable funding, the Board of Regents necessarily risked making the formula too complicated. In its preoccupation with making a funding program as accurate as possible, it is very easy for a

state agency to make the formula too complex to be easily understood by laymen in general and the state government in particular. Documentation is necessary, but if state officials cannot understand how a budget request was compiled, they are not likely to approve it.

Our finance staff therefore began investigating the formula's format to determine where unnecessary detail might exist and could be eliminated for the sake of simplification. They found, for instance, that the method used for determining SCH values was much too complicated. To ensure that SCH values accurately reflected the actual cost of instruction in various disciplines and at various academic levels, the formula initially contained ten different dollar values for student credit hour production. The staff discovered that the formula would be just as accurate in most areas of instruction if only two values were assigned, a high cost and a low cost, with additional dollar values only in those disciplines with exceptional costs to be considered, such as medicine and law.

By implementing formula funding and standardizing the budgeting practices of all public institutions, the Board of Regents succeeded in increasing both the state government's confidence in and overall support for higher education. In the early years of formula funding, the Board of Regents had to battle for every dollar appropriated for higher education purposes and stood helplessly by each year as the overall level of formula implementation fell far short of its targeted 100 percent implementation. In the past two years, however, there has been a turnaround in state support for higher education in general and formula funding in particular. For two consecutive years, the overall rate of formula implementation has not only met but exceeded the 100 percent mark. Furthermore, in less than a decade Louisiana has jumped from last in the nation in terms of increased state support for higher education to second in the nation for 1978 and 1979.

The Regents, the state government, and the institutions have not always agreed on every consideration. Two points of contention are research and intercollegiate athletics. When the Board of Regents first assumed authority over higher education finance, there was no specific provision for research in the formula. Each institution was expected to fund whatever research was deemed appropriate to its role and mission within the scope of its operating budget. There were two exceptions to this rule: the legislature could appropriate additional funding to finance specific, legislatively-mandated research, and the main campus of Louisiana State University could request funding over and above their operating budget to support the exceptional research activity of the State's single comprehensive university.

In enabling LSU to apply for additional funding purely for research, we unfortunately were accused of singling out the institution for special

treatment. Also, it was very difficult to make an arbitrary determination of the amount of funding LSU required to fulfill its research responsibilities. As a result, provision for research is now made within the formula framework, and that provision has been extended to apply to all institutions. The amount of research funding to which each institution is entitled is based on a combination of two factors—its overall SCH production and the institution's unique research mission as defined by the Master Plan for Higher Education.

Although there is general satisfaction with the way the Regents have elected to fund research, no agreement has yet been reached in the matter of state support for intercollegiate athletics. The Board of Regents has struggled vainly for several years to end State subsides for intercollegiate athletic competition, preferring instead that competitive sports programs be supported by self-generated money only. It has yet to make converts of either the Legislature or the institutions, however, both of whom believe the athletic programs are too weak financially to be self-sustaining.

As you can see, the manner and degree to which the state of Louisiana funds higher education has changed dramatically in the five years that the Board of Regents has been in existence. The Regents have implemented (and largely written) a funding formula which not only has documented the need for increased state support but has ensured the equitable distribution of that support. The Board also has succeeded in standardizing budgeting practices for all higher education and in doing so has made the financial operations of public colleges and universities more accurate and more accountable. All of these revisions and benefits have combined to increase public confidence in and support for higher education in Louisiana.

CHAPTER 3

The Chief Institutional Finance Officer Perspective

James Brinkerhoff

Perspectives do make a difference, and it is occasionally surprising to discover these differences. My perspective on financing policies is as Chief Financial Officer of the University of Michigan. My major concerns, therefore, are based upon the character of my institution, the programs we undertake, and the application of resources to make these programs operate.

The University of Michigan is governed by eight Regents elected at large. Since 1850 the State Constitution has provided that "the Board of Regents

shall have the general supervision of the University and the direction and control of all expenditures of the University funds." Michigan has a tradition of operating in a highly decentralized fashion and depends to a great extent on decisions made by deans, directors, and department heads. This is due to a long-held belief that initiatives should come naturally from the academic structure. The major objective of administrative officers is the creation and maintenance of an environment in which imaginative and energetic academicians can carry out their activities of teaching, research, and public service in the most effective way.

Although this objective implies an individualistic, free-form atmosphere, all of us recognize the need for a disciplined system. The art of financial administration is in achieving a free environment tempered with self-discipline and accountability in financial matters.

From a financial policy perspective, achieving that kind of environment requires, most of all, stability of real current funds resources from year to year. The ideal situation would include the following kinds of things:

1. **Financial Flexibility.**

> *In simplest terms . . . no more than the conventional and prudent practice of maintaining sufficient financial liquidity so that if revenues fall, or expenditures increase unexpectedly, monies can be found to fill the gap. That gives the organization time to adjust, it avoids crisis management and sudden disruptions in operations which might cause permanent and irreparable damage* (Harold T. Shapiro, President, University of Michigan).

A characteristic of universities is an almost fixed annual expense budget and a shared decision structure which simply is not geared to crisis management. This is in sharp contrast to a centralized industrial organization where decisions about changes in prices, production schedule, and staffing can be made and accomplished quickly.

2. **Resource Allocation.**

A policy of allocating resources today for projects which will reduce expenses later is needed, for example, energy saving equipment. Other examples include installation of central controls of building systems, cogeneration of steam and electric power, and retrofitting of heating and air-conditioning systems. Expenditures on such projects are investments. They have a real, measurable payoff and tend to add the kind of stability needed.

There are other potentials, although the calculation of savings is not as certain. The range of computer applications in administration certainly has potential for reducing costs in such areas as student registration, grade processing, accounting, payroll, purchasing, and personnel activities. The problem of achieving real savings is clouded by an increasing need to collect and provide new and complex information to those in outside agencies responsible for monitoring some specialized area of activity such as affirmative action.

3. **Preservation of Purchasing Power of Investments.**

For many years our emphasis has been on current income. With some responsibility for the future we are now considering two things: first, shifting to an investment emphasis on growth, and second, where possible, limiting the amount of current income disbursed with a reinvestment of the balance. This is a mirror image of the Bundy recommendation on expenditure of growth of principle.

4. **Investment Rather Than Current Expenditure of Certain Restricted Gifts.**

A growing number of deans have recommended that gifts to their schools and colleges which are otherwise unrestricted be invested rather than expended during the current fiscal period. In these cases it is more attractive from the dean's standpoint to have a smaller, but stable, source of funds than to face the possibility that program commitments cannot be met due to fluctuations in annual giving.

From my perspective as a financial officer, I believe the institution needs the liquidity which these things imply. There has always been some tension between faculty and administrations and between public universities and legislatures about these kinds of policies; however, I believe that matching revenue to expenditure, currently and exactly, leads to the imposition of a set of central controls and procedures which are antithetical to the kind of free environment which promotes imagination and initiative.

Having outlined a kind of ideal, I will review the University of Michigan's current situation. Beginning in the early 1970s the combination of inflation and reduced state appropriations caused units to budget less for nonpersonal expenditures than for salaries. Thus there was a gradual erosion of ability to secure equipment and other nonsalary support requirements. The Arab Oil Embargo in the middle 70s resulted in massive energy cost increases and, precipitated by the auto industry decline, created a severe restraint on state revenues and thus state appropriations to the university. These appropriations were reduced during the fiscal period, and reductions were met only

through redirection of amounts previously budgeted for library books, maintenance, and centrally-maintained major equipment accounts.

After these lean years and our collective decisions about meeting the financial difficulties, it became obvious our budgets were severely out of balance between salary and nonsalary components. Therefore, an effort to restore this balance was begun. Our particular solution was the establishment of a priority fund, established through mandatory reduction of 1 percent per year in all budgets. Our plan was to use the fund over several years to restore the necessary balance.

This plan was fine, conceptually, but it was simply not possible to keep up with the increasing inflation and the recession effects in our state. The troubles at Chrysler and the record deficits at General Motors, Ford, and American Motors give an indication of the tax revenues available for operations in Michigan. Our appropriation was again reduced during the 1979-80 year and has thus far been cut twice in 1980-81. We are meeting these adversities by substantial reduction in activities. Whatever financial flexibility we have had is gone.

We are now planning for the future with the following premises:

1. The character of our institution, that of a high quality, research-oriented university, must be maintained.
2. That implies the maintenance of our salary levels, restoration of supporting nonsalary budgets, and the restoration of financial flexibility which provides the environment discussed earlier.

To accomplish this requires narrowing the University's academic objectives. In 1978, then Vice President for Academic Affairs and current President, Harold Shapiro, told a group of business officers:

> *The single most difficult class of decisions in the years ahead is to choose from the socially useful set of academic objectives a* **subset** *to which we at the University of Michigan believe we can speak with special authority and responsibility.*

It is this task we are now undertaking.

I would like to mention briefly our relationship with the State. We feel that we have done our job in providing quality education for people of the State. Sponsored research activity in our institution has been of substantial benefit to the State's economy, and our people have been involved in the establishment of the kind of high technology spin-offs which our state needs. We are now looking at a more formal way to encourage this activity.

Our relationships with the State administrative officers and the Legislature are very good. We have an adequate opportunity to present our situation, and our requests and aspirations are fully understood. Like some other states, we feel that higher education in general has not received the level of support it has in the past, relatively, and hope that in the future we will have a reversal of this trend. Our tuition levels, particularly, are of concern.

From my perspective as the Chief Financial Officer I have tried to emphasize the importance of financial flexibility in preserving the kind of environment which gets the best values from a superb group of academicians. I reviewed our intent to preserve the character of our institution by narrowing our academic objectives. My institution has a long and distinguished history, and we believe we can maintain its values and continue its accomplishments.

PART III
RESEARCH STUDIES

Introduction

In 1980, the National Center for Higher Education Management Systems began to provide financial awards for outstanding research papers in higher education. The purpose was to encourage excellence in research on higher education finance and, through the Arizona conference, bring that research to bear upon financial policy making in higher education. Thus, these papers were presented along with the reports of on-going or recently completed major national research studies. Following are selected research papers.

CHAPTER 4

Indexing Tuition to Cost of Education: Implications for State Policy

Dennis Viehland, Norman Kaufman, and Barbara Krauth

For a variety of reasons, state policies that set tuition levels at public higher education institutions are changing. The traditional incremental pricing method of determining tuition and fees is being reconsidered in favor of specific pricing formulas, especially an index to the cost of education. The attraction of this approach arises from a number of causes including the upward pressure on tuition created by changing demographic and fiscal conditions.

The demographic outlook for higher education is irrefutable. The size of the traditional college-age cohort is growing smaller. Nationally, the number

*For the purpose of this article tuition will be considered to be the basic comprehensive student charge used, along with state appropriations and other unrestricted institutional receipts, to fund activities relating to student instruction. These activities could include instruction, academic support, administration, student service, and plant operation. *These charges may or may not be known as tuition* and, in some states, may be general fund revenues. Other designations might include educational fee, incidental fee, registration fee, or instructional fee. Required fees assessed for specific purposes (e.g., health, athletics, bond retirement) are not included.

of high school graduates is expected to decline 18 percent by 1986 and 26 percent by 1991 (Western Interstate Commission for Higher Education, 1979). Although a number of factors influence college enrollments, most projections forecast declining enrollments for higher education. The relationship of enrollment to tuition income is a positive one, and it is apparent that in order to maintain current levels of tuition income in a period of declining enrollments, student charges will have to increase. Further, at the same time enrollments decline, institutional costs will not. Costs for higher education institutions will rise, not only due to inflation, increased maintenance, or higher energy prices, but also from the diseconomy of scale—a decreasing student population with rising fixed costs will result in increasing costs per student. Consequently, declining enrollments and increasing costs threaten a one-two punch on student charges—fewer students paying heftier fees.

Changing fiscal conditions within the states and the U.S. as a whole will also tend to increase tuition levels. The vulnerability of tuition to pressures of the economy is illustrated by three factors. First, public higher education is highly dependent upon state appropriations. In fiscal year 1977, tuition and fees accounted for only 16 percent of the educational and general revenues of public colleges and universities; 59 percent of these revenues came from state and local appropriations. Second, higher education appropriations are a major component of total state appropriations, second only to elementary and secondary education in most states. Thus, cutbacks in state appropriations, even if distributed evenly among all state recipients, will have a sizable impact on higher education. Finally, tuition is usually viewed as the balance between operating budget requirements and state or local appropriations. As a result, when state or local government revenues are restricted, states will seek increased revenues from other sources, including tuition and fees for higher education.

Although both changing demographics and fiscal constraints point toward higher tuition, the latter is more ominous. The fact that higher education must now face a shrinking college-age cohort has long been anticipated and well-documented. Dismal fiscal conditions, in contrast, are more recent and more unexpected. Furthermore, it is the fiscal constraints that will be more decisive in pushing up tuition. A research study by Rusk and Leslie describes this tendency. In a study of factors affecting tuition they found:

> *Tuition prices and price increases tend clearly to be higher where the state effort is insufficient to the financial obligations of the institutions. Indeed, of the manipulable variables studied, adjusting state appropriations seems to be the major way to affect tuition levels. State policymakers should be aware of this fact not*

only for the value of achieving desired outcomes, but also for the knowledge that appropriations shortfalls will raise tuition prices just as surely as if the prices had been raised by the legislators themselves (Rusk and Leslie, 1978, p. 544).

This pattern has become evident in the current recessionary period when temporary revenue shortfalls in several states have resulted in mid-year tuition increases to recover lost revenues. In addition, recent surveys of American public opinion have revealed surprisingly strong sentiments to curtail public higher education budgets before other public services (see Table 1 which shows the results of the survey by the Advisory Commission on Intergovernmental Relations).

TABLE 1

Supposing the Budgets of Your State and Local Governments Have to Be Curtailed, Which One of These Parts of the Budget Would You Limit Most Severely?

	U.S.	Northeast	North-Central	South	West
Public Safety (fire, police, criminal justice)	2%	1%	2%	3%	4%
Public Schools (kindergarten-12th grade)	3	4	2	3	4
Tax-Supported Colleges and Universities	23	24	21	19	32
Aid to the Needy	8	3	9	11	6
Streets and Highways	11	15	10	7	16
Parks and Recreation	40	36	44	45	31
Don't Know	12	17	11	12	9
Total*	99%	100%	99%	100%	100%

*Percentages may not sum to 100% due to rounding.

Source: Advisory Commission on Intergovernmental Relations

Opposed to these forces, however, are others that work to keep tuition levels as low as possible. Included among these are historical commitments to low student charges, the political sensitivity of elected officials, and a recognition of the social benefits of higher education. In the absence of an explicit affirmation of these considerations, however, tuition setting is likely to be viewed purely as a fiscal matter and thus is clearly vulnerable to the demographic and fiscal pressures just discussed.

In October 1980 the state higher education executive officers (SHEEO) in each state were surveyed to ascertain the policy (if any) currently being used to determine tuition levels. Table 2 presents a summary of the survey results.

TABLE 2

State Policies for Determining Tuition Levels

No established policy: 30 states		
Established policy without specific formula: 3 states		
Established policy with specific formula:		
Indexed to:	Higher education price index:	1 state
	Cost of instruction:	1 state (nonresident tuition only)*
	Cost of education:	14 states (nonresident tuition only in 2 states)*
	Charges at comparable institutions:	1 state

*In Montana nonresident tuition is set with reference to the cost of instruction. In Massachusetts and New Hampshire nonresident tuition is indexed to the cost of education. There is no established policy for determining resident tuition in these states.

Thirty states do not have an established policy for determing tuition. In most of these states tuition is determined in an ad hoc manner that might best be described as incremental pricing. By incremental pricing, we mean that current tuition levels are adjusted upward in light of inflation, traditional practices, enrollment changes, state appropriations, and whatever other factors are deemed relevant by the decision makers.

Three states do have established policies but no particular formula to determine tuition. In these states there is a written and formally-approved statement of the factors to be considered in determining tuition levels, but no specific formula is used.

Seventeen states have established policies that index tuition to a specific measure. Kentucky indexes tuition to charges at comparable institutions in other states, and Illinois uses the Higher Education Price Index as the indexing tool. In Montana nonresident tuition is referenced to cost of instruction (cost of instruction is defined as instruction and academic support costs; it is distinguished from cost of education, which includes these costs plus institutional support, student services, plant, and other educational costs).

The fourteen states that index tuition to the cost of education represent an increase since 1976, when the Washington State Council for Postsecondary Education identified six states that used this method (Council for Postsecondary Education, January 1976). The six states identified in that study were Colorado, Florida, Kansas, New Hampshire (nonresident tuition only), Oregon, and Wisconsin. To these are now added the states of Arizona, Maine, New Jersey, Ohio, Oklahoma, Virginia, and Washington. In addition the

state of Massachusetts determines nonresident tuition by indexing it to educational costs although the state has no established policy for setting resident student charges.

The survey also questioned the SHEEOs regarding whether their state was considering a change in the current policy, and if so what was being considered as an alternative policy. These results are shown in Table 3. Most states are not now considering a change in their tuition setting process. Of the twelve states that are considering a change, indexing tuition to educational costs was listed by five states as the alternative policy under consideration.

TABLE 3

Is your state considering a change in the policy or procedures used to determine tuition?:

Yes: 12 states No: 38 states

What is being considered as an alternative policy or procedure?

Indexed to cost of education:	5 (Georgia, Massachusetts-resident tution, Minnesota, Mississippi, Missouri)
Indexed to charges at comparable institutions:	1 (Montana)
Many alternatives are being considered at this time:	6 (Colorado, Idaho, Kentucky, Texas, West Virginia, Hawaii)

The survey results previously outlined indicated that states are increasingly adopting indexing to cost of education as an established policy for determining tuition. Several explanations for this trend are possible.

Most obvious is that relating tuition to educational costs rationalizes tuition policy. In states that do not have established policies for determining tuition, there is little justification for why student charges are what they are. A state's adoption of an indexing policy and, even more importantly, the specification of the percentages to be used provides an explicit declaration of what portion of educational costs the student is expected to assume.

Expressing tuition as a share of educational costs also creates a tighter link between tuition and overall state support. The policy is likely to be legislatively determined, and the tuition received is likely to be considered state income rather than institutional income. The concepts involved in the use of a formula to determine tuition are consistent with those used in formula budgeting to establish state appropriations in many states. Indeed, most states that index tuition to educational costs also use formula budgeting.

Indexing insures that a fixed portion of cost increases will be covered from student sources. This appeals to a number of constituencies. Legislators may

like the fact that a formula for setting tuition passes along a specified portion of annual cost increases to the student. The attraction for educators is that increases in tuition revenue are gradual and planned rather than sudden and in response to short-term revenue shortfalls. In times of increasing fiscal constraints on state government, indexing also may be viewed as a method of shielding tuition from increases as state support slows. In inflationary times indexing may appeal to students and parents as well.

> *Relating tuition to costs could in effect put a ceiling on the share that students and their families are expected to bear because, in inflationary times, tuition shares of costs have often increased more than proportionately as other sources of support have lagged* (Van Alstyne, 1977, p. 76).

Indexing tuition to the cost of education is a straightforward, technically objective process. The cost of education is determined according to set accounting practices, and the student is charged a set percentage of this cost. Developing the policy, however, requires making a number of subjective decisions. The following discussion examines some of the questions that must be addressed in order to initiate an indexing system.

1. What elements should be included in the computation of the cost of education or instruction?

   Cost of instruction computations usually include on-campus instruction plus a percentage of academic support costs. Cost of education is a broader term that also includes all or major portions of student service expenditures, institutional support, and plant maintenance expenses. Expenditures for capital improvements, research, public service, off-campus instruction, and auxiliary enterprises are usually excluded from both definitions. Most states that use the indexing method relate tuition to the cost of education with the justification that the additional costs support instruction and, indeed, that the education being purchased includes these costs.

2. Should costs be determined at all institutions?

   In other words, are cost studies necessary at all institutions? The answer to this question is probably no. Above all cost determinations should be parsimonious. Smaller colleges usually lack the technical resources and expertise necessary to carry out the studies. As a result, a fairly common practice is to require major universities to complete the cost studies, and tuition at smaller institutions is then scaled to some percentage of the resulting university tuition. Some states may want to avoid cost studies

altogether and use some measure, such as authorized budget figures, which is less accurate but also much less expensive to calculate.

3. A related question is: Should the cost of education be computed by student level?

   Because of the difficulty of allocating costs by level most states seem to have decided not to compute the cost differences by levels.

4. What percentage of costs should be passed on to students in the form of tuition?

   In 1973 the Carnegie Commission for Higher Education recommended that tuition be increased to equal one-third of educational costs (Carnegie Commission for Higher Education, 1973, p. 10). In that same year, the Committee for Economic Development recommended that one-half of instructional costs be passed on to students (Committee for Economic Development, 1973, p. 69). For the most part, it appears that these recommendations have had little national effect. There is no evidence that any state charges more than one-third of educational costs to its resident students. A recent study by the Western Interstate Commission for Higher Education (WICHE) revealed that "tuition in the four western states with established indexing policies ranges from 20 to 25 percent of costs for resident undergraduates" (WICHE, 1980, p. 10). The Washington State Council for Postsecondary Education, when establishing the indexing policy currently used in that state, wrote that, "in no case have we found a definitive, uniformly accepted philosophic basis indicating the proportion of total costs which *should* be borne by the student or the taxpayer" (Washington State Council for Postsecondary Education, May 1976, p. 40). Even where attempts are made to base charges on such principles, technical problems complicate the effort, as MacDonald points out.

   > *The rationale for tuition charges at a public institution is often based on the argument that individuals should pay for the portion of the benefits that accrue to each personally, while the public should pay for that portion which contributes to the social benefit of all. However, the art of defining, measuring, and allocating these benefits is not very advanced; given the complex nature of the products of educational endeavor, it is unlikely to ever be very precise* (MacDonald, 1977, p. 3).

Additionally, all involved in the process should recognize that although the use of an index relating tuition to a percentage of costs produces a

uniform, and presumably reasonable, standard for annual or biennial tuition increases, those increases are likely to be reviewed and challenged by affected parties each year. States (Florida and Washington, for example) have sometimes lowered the dollar amount of tuition increases even when they were generated by use of an educational cost index. In Washington, the formula specifies that students be charged 25 percent of educational costs, but in the last legislative session tuition was established at a dollar figure that amounted to 18 percent of calculated costs.

5. Should the percentages charged vary by student level?

Although conducting cost studies to yield data by student level is a technical problem, differentiating the actual percentages to be charged by level is a philosophical one. In *Higher Education: Who Pays? Who Benefits? Who Should Pay?*, the Carnegie Commission recommended that "tuition should be more nearly proportional to costs, rather than regressive as against students at the lower levels" (Carnegie Commission, 1973, p. 12). The Commission thus urged that graduate students be charged the same percentage of costs as undergraduates. But because graduate instructional costs are greater, they recommended that the amount of tuition graduate students pay should be higher. This seems to be a position most policy makers embrace but one which, as noted before, is difficult to implement because of the difficulty in separating undergraduate educational costs from graduate costs. Instead, some states have simply adopted a policy of determining undergraduate tuition and then charging graduate students at a specified, higher rate. Colorado, for example, sets graduate tuition at 105 percent of undergraduate charges, and in Washington graduate students are charged 115 percent of undergraduate tuition. The intent of the Carnegie Commission's recommendation is followed in such cases even if the recommended process is not.

The practice of charging different percentages of costs to upper and lower division undergraduates is uncommon. The pressure to reduce the percentage charged to lower division students could increase, however, as institutions adopt policies to encourage adult participation and to increase the access of economically disadvantaged groups because these groups are especially responsive to educational charges. Available evidence suggests that cost per student, by level, do not differ significantly across institutional types (Johnson, 1979). Therefore, a uniform percentage of costs applied to different levels of undergraduate instruction would result in lower tuition for lower division students at both four-year and community colleges.

6. Should the percentage charged vary by student residency?

   Based on current practice, the answer to this question is clearly yes. In almost all states, whether indexing is used or not, nonresident students have traditionally been charged approximately 100 percent of the cost of education. Although this practice seems well entrenched, a period of increased competition for students might bring about some changes in this policy. Institutions, especially those experiencing enrollment losses, may be inclined to lower this percentage in order to attract additional out-of-state students. Clearly there is conflict between the desire to charge nonresidents the full cost of education and the desire to maintain current enrollment levels and diversity in the study body.

7. Should the percentage charged vary by type of institution?

   Although per student costs by level of instruction do not differ significantly across institutional types (e.g., two-year, four-year, university), there is a difference in the educational product being purchased. Thus, equity may not be served by charging a uniform percentage across all institutional types. Additionally, as certain institutions lose enrollments, officials may try to distribute students to those institutions by lowering tuition. Although previous attempts to redistribute students through such adjustments have been notoriously unsuccessful, political pressures might well lead some states to try this approach again in the future.

Adoption of an indexing system for setting tuition implies that certain principles will be better served through such a policy. Clearly, state policy goals should be the starting point for determining the proportion to be used in an indexing approach. Student access, support for graduate education, and diversity of student bodies are all affected by tuition levels, and indexing tuition to educational costs can be one way in which state financial policy is made explicit. The percentages chosen should reflect consideration of fundamental policy issues, such as the relative benefits of higher education to both society and the individual as well as the relative costs, including foregone personal income. Current practice, however, rarely matches the ideal. In most states, the percentage of costs chosen is more likely to be a product of historical patterns, interstate comparisons, or current charges rather than of clear policy decisions.

Adoption of a policy that sets tuition by use of an index involves implication for a number of different constituencies with respect to planning, budgeting, and student enrollment.

State Budgeting. As total enrollments stabilize while costs continue to increase, will state appropriations make up the difference between tuition income and the requested budget, or will there be continued pressures to increase overall revenues from tuition? As noted, the use of a constant percentage index to set tuition will assure that annual increases in tuition will not be arbitrary. However, the same pressures that would drive up tuition charges in the absence of a formula could also work to change the formula to yield more revenue. An indexing arrangement could be undone by price increases that are unacceptable to students and politicians. We have already seen several states adopt tuition increases lower than those generated by indexing formulas.

Institutional Autonomy. It appears that using an index reinforces the notion that tuition revenues are state funds—either general revenues or offsets to appropriations. The practical effect of this view is a reduction in institutional autonomy. Indexing tends to curtail institutional control over the amount of money generated from tuition and also to decrease budgetary flexibility in the use of these revenues at the campus level.

Cost Containment. Will higher education institutions be able to contain their real dollar expenditures in light of declining enrollments in order to stabilize their per student costs? Elementary and secondary schools have been unable to do this; higher education, with its high fixed costs, will probably not be able to either. Higher per student costs in an indexing arrangement will obviously result in increasing student charges. If students are sufficiently sensitive to price, these higher charges may put pressure on administrators to contain costs. Cost containment, however, will require programmatic and staffing cutbacks as well, and these have not been easy to achieve in the past.

Impact on Enrollment. It is possible that if tuition is indexed to costs that are rapidly increasing, the resulting tuition increases may contribute to enrollment declines.

Cost Study Requirements. If states require extensive documentation, administrators will be burdened with the need to conduct annual studies to determine per student instructional or educational costs. As part of this process, they may be called upon to justify or explain differences among institutions. This would serve to politicize the process rather than to rationalize it.

Cost Behavior. Regardless of the procedures used, budget officials should be cognizant of the fact that the behavior of costs usually results in what we earlier called incremental pricing, even in states that set tuition as a percentage of educational costs. Because costs are essentially a function of the

dollars available to an institution in any given year, and because annual changes in educational costs tend to result from marginal additions, tuition changes generated by formula-driven computations turn out in the end to be incremental too.

Equity. If costing is to be used as a basis for setting tuition rates, how is equity for students at different institutions to be achieved? To set tuition at 25 percent of costs at one class of institutions and 20 percent of costs at another for the purpose of creating price differences is to treat one group of students unequally based on their enrollment preferences. Policy makers should address these questions openly in enacting such policies.

Access. These considerations also bear heavily on issues relating to access for the economically disadvantaged, adult students, and those traditional students whose attendance patterns are influenced more by price than by curricula or selectivity. Unless financial aid is adjusted accordingly, these students may be deterred from enrolling at higher-priced campuses which might impede efforts by those schools to increase their enrollment of minorities, adults, and other affected classes.

To summarize, the use of a tuition index should be tied to a firm educational and social policy. The simplicity of using a tuition formula is illusory because it encompasses a wide range of issues and principles. To address some of these issues, state policy makers need to move beyond the view of tuition setting as only a fiscal matter. If a tuition index results from a careful discussion of its broad implications for finance and access, then it can become a highly appropriate vehicle for implementing state policy.

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CHAPTER 5

Designing State Student-Aid Policies for the 1980s

Jane Louise Johnson

Postsecondary education finance experts have long debated the relative merits of subsidizing students through low tuition levels at public institutions or through student financial aid accompanied by higher tuition levels. The low-tuition mechanism has been deemed to provide better student access to higher education since the prospective student directly confronts the stated tuition cost, need not fill out elaborate financial-aid application forms, and knows exactly what his/her costs will be before beginning studies.

On the other hand, the student financial-aid mechanism has been considered the form of subsidy more likely to provide both access and choice since it can target aid to students most in need of it and allow students to choose the college of their choice. Student aid that is need-based also produces a less regressive distribution of income than that resulting from low-tuition public higher education. As a public policy matter, student aid can be used to redistribute income, much like progressive income tax.

The federal government has remained committed to the student-aid model since the passage of the Higher Education Act of 1965. Title IV of that Act, the most heavily funded section, contains student-aid programs such as Basic Educational Opportunity Grants (BEOG) designed to promote equal educational opportunity, access, and choice.

dollars available to an institution in any given year, and because annual changes in educational costs tend to result from marginal additions, tuition changes generated by formula-driven computations turn out in the end to be incremental too.

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On the other hand, the student financial-aid mechanism has been considered the form of subsidy more likely to provide both access and choice since it can target aid to students most in need of it and allow students to choose the college of their choice. Student aid that is need-based also produces a less regressive distribution of income than that resulting from low-tuition public higher education. As a public policy matter, student aid can be used to redistribute income, much like progressive income tax.

The federal government has remained committed to the student-aid model since the passage of the Higher Education Act of 1965. Title IV of that Act, the most heavily funded section, contains student-aid programs such as Basic Educational Opportunity Grants (BEOG) designed to promote equal educational opportunity, access, and choice.

Throughout the course of American history until 1965, the federal government subsidized higher education through various legislation, among them the Morrill Act granting endowments of land for agricultural colleges, the G.I. Bill for returning World War II veterans, and the National Defense Education Act for science and engineering students in the post-Sputnik era, designed to satisfy the nation's economic, social, and defense needs.

The federal government has not always targeted its financial subsidy to higher education to achieve equal educational opportunity however. Nor is there any assurance that the policy implemented since 1965 will continue to be the top priority as national conditions and needs change or that student financial-aid programs contained in Title IV will remain intact.

Subsidies for higher education derive only in part from the federal government. By the provisions of the Tenth Amendment to the U.S. Constitution, education as a public activity was left to the states. At this level of government more consistent patterns of higher education financing are evident. For what appear to be primarily historical reasons, some states have made extensive use of the student-aid mechanism; others have funded higher education almost entirely through appropriations to public institutions which in turn offer waivers or low tuition to students.

Regional patterns in state higher education financing appear to be related to the existence of strong private college sectors. States throughout New England, the Middle Atlantic area, and the upper Middle West typically allocate large amounts of state monies to student financial aid. The National Association of State Scholarship and Grant Programs (NASSGP) reports, for example, that in 1979-80 New York accounted for 32 percent of all student aid expended by states; Pennsylvania expended 10 percent, Illinois 9 percent, and New Jersey and Ohio 4 percent each. Smaller states such as Vermont and Rhode Island spent sizeable amounts on a per capita basis. In all of these states, private sector enrollment rates are relatively greater than the 25 percent level for the nation as a whole.

NASSGP also reports that whereas federal funds from the State Student Incentive Grant (SSIG) program comprised 9 percent of all student-aid funds for the entire nation, in some states the SSIG funds are overshadowed by state funds that more than match the federal share. For example, SSIG funds constitute only 3 percent of all student-aid in New York, 4 percent in Pennslyvania and Vermont, and 5 percent in Illinois and New Jersey.

Throughout the West and South, SSIG funds accounted for about 50 percent of all student-aid funds; state funds just matched the federal share. Western and Southern states with limited private sector development have shown little interest in student aid. The emphasis has been on direct funding

to public institutions, and as a result public tuition levels in these regions are below the national average. The National Association of State Universities and Land-Grant Colleges reports, for example, that 1979-80 tuition charged by its member institutions averaged $1,011 in New England, $925 in the Middle Atlantic, $858 in the Midwest, $683 in the West, and $602 in the Southeast. The American Association of State Colleges and Universities reports that its institutions charged an average of $786 in the East, $732 in the Midwest, $624 in the South, and $496 in the West, with a national average of $660.

These regional distinctions in higher education financing appear to be well-established, altering little over time. Within individual states, however, the rationale and administration of student aid may change as conditions change. As at the federal level, the student-aid subsidy mechanism can be targeted to accomplish various objectives. New York, a leading state in terms of both private higher education and state-funded student aid, offers a good example of changing policies and programs to solve changing problems.

One measure of the strength of New York's private higher education is the relationship of its enrollments to those in the public sector. Across the nation three full-time undergraduate students are enrolled in public institutions for each student in a private institution. But in New York the ratio is only 1.5 students in the public sector for each student in the private sector. The New York private sector, established as early as colonial times, predates the State University of New York (SUNY) system, which took shape in 1948. New York's share of the Morrill Act land scrip was awarded to Cornell University, a privately-endowed institution, rather than a state university.

Total support for higher education is not exceptionally high in New York, but student aid is well-funded. The state ranks only thirty-third in the nation in terms of higher education expenditures per $1,000 of personal income and twenty-fifth in expenditures per capita but spends 32 percent of all state-funded student aid in the nation. As early as 1913, New York initiated its merit-based Regents Scholarship program from which awards were made to students in both the public and private sectors. In 1961 the state initiated the Scholar Incentive program in which need-based awards ranged up to $600 annually for students in both sectors.

In 1974 with significant lobbying from the well-established private sector, the legislature passed the Tuition Assistance Program (TAP) to replace the Scholar Incentive awards. Annual TAP awards were $1,500 or tuition, whichever was less, for New York students enrolled full-time in public or private in-state institutions. When the maximum TAP award was raised to $1,800 in 1977, the increase benefited private-sector students only, since they paid tuitions at this higher level.

TAP is a need-based entitlement program with progressive award schedules based on New York State net taxable income. Funding for the program has increased dramatically since 1973—total expenditures up by 400 percent (to $255 million in 1979-80), average awards up by 200 percent, and number of recipients up by 60 percent. Meanwhile funding for the older Regents Scholarship program, in which flat $250 awards are based on SAT scores of high school seniors, has declined by one-third, from $30 million to $20 million.

From the beginning, the TAP program has been popular with New York legislators, 74 percent of whom possess undergraduate degrees from private institutions. The program is also very popular with the New York private sector, which depends increasingly for survival on TAP-carrying New York students. The program has been sold to legislators, taxpayers, and the higher education community on the basis that it provides students the means to attend the college of their choice in addition to the access provided by other financial-aid programs such as the federal BEOG program.

The TAP program was designed to fulfill other goals also. According to the report of the New York Legislature's 1974 Select Committee on Higher Education, the program was intended to foster competition between the public and private sectors and to utilize existing capacity in the private sector rather than expand facilities in the public sector. To foster intersectoral competition requires reducing the tuition gap between the sectors. To utilize existing private sector capacity means encouraging students to enroll in that sector in order to reverse downward enrollment trends.

How well the tuition gap reduction and enrollment trend reversal have been accomplished is a measure of the TAP program's efficacy. Private sector tuition has always been higher than public sector and in recent years has increased more rapidly. Since 1973, one year before TAP became effective, the average tuition gap between SUNY four-year campuses and private four-year institutions increased 67 percent, but the student's average net tuition gap (taking TAP awards into account) increased by only 25 percent.

The reduction in tuition gap from 67 to 25 percent has, of course, been accomplished with larger awards (up to the maximum $1,800) for students in the private sector. In 1979-80 private sector tuition averaged $3,700; at SUNY tuition was just over $1,000. Despite similar income levels among students at private colleges and at SUNY, average TAP awards in the two sectors were $1,230 and $504, respectively. The average difference between awards in the two sectors increased thirteen-fold between 1973 and 1980. The TAP award structure has effectively reduced the net cost differential between private and public institutions. While private sector students still pay higher tuition in

absolute terms, they pay relatively less than in pre-TAP days and also receive relatively larger state subsidies to attend college.

Evidence of enrollment shifts is equally impressive. Between 1973 and 1980 the private sector's share rose steadily from 35 percent to 39 percent of full-time undergraduate enrollments in New York. The ratio of full-time undergraduates enrolled in four-year private institutions to those at SUNY four-year campuses increased from 1.64:1 to 1.79:1. The ratio of enrollments at four-year private institutions to those at SUNY community colleges rose from 1.26:1 to 1.98:1. In 1973 twenty students were enrolled in SUNY community colleges for each student in a private two-year college; by 1980 there were only eleven times as many students at SUNY community colleges as at the private two-year schools.

Interestingly, these enrollment shifts have been accomplished without limitations such as the BEOG half-cost rule, which limits awards to no more than one-half of total attendance costs, ostensibly in order to preclude a free ride for students at low-cost public community colleges. Under current TAP policy, a New York student at a public institution may receive a TAP award equal to the total amount of his tuition; there are no limits. A TAP half-cost limitation of the BEOG type would produce even more pronounced enrollment shifts since it would further reduce the net cost differential between public and private institutions. That is, the cost of attending a private institution relative to a public institution would be even less with such a limitation.

Financing policies in New York have not only encouraged students to attend private colleges but have also encouraged those institutions to retain those students through graduation. While nearly half of the annual $255 million in TAP accrues to the private sector (in the form of tuition from students), this funding is supplemented by $68 million annually in direct institutional aid based on degrees granted at private institutions. These awards range from $330 for each associate degree, $940 per baccalaureate degree, $650 for each masters, and $3,100 per doctoral degree. Public sector institutions are not eligible for these degree-based awards.

By any measure, the TAP program can be considered a success, both from the perspective of students and of institutions. The New York experience with TAP shows the power of student-aid policies to impact tuition and enrollment conditions within a state. In addition to providing student choice and a progressive redistribution of income, the program has provided appropriate incentives for students to attend private institutions and for these institutions to graduate the students. Thus New York has succeeded in its policy of preserving and augmenting its private sector while increasing enrollments generally in a period of growth and expansion.

In the 1980s, tuition and enrollment conditions will continue to present problems to federal and state governments as well as to institutions. Enrollment increases are projected to continue through 1981, capping a thirty-year rising trend accommodated by expansion of higher education facilities and construction of new institutions. After 1981 a projected drop in the traditional college-age population will begin. Despite enrollment declines, however, institutional costs may continue to rise. Most institutions experience high fixed costs for outlays such as tenured faculty salaries. Because of these high fixed costs, average cost per student may increase as enrollments decline. Given the length of time needed to adjust institutional expenditures, this paradox of lower enrollments and higher costs is expected to trouble higher education in the 1980s.

Enrollments and institutional finances are inextricably linked. Falling enrollments will place pressure on tuition revenues for both private and public institutions. Particularly in the tuition-dependent private sector, student charges will inevitably continue to rise. If these increases are not matched in the public sector, the public-private tuition gap will continue to grow. Programs aimed at reducing the public-private tuition gap may no longer succeed in that endeavor.

The demographic situation underlying these enrollment projections poses interesting possibilities for postsecondary education. Widely-cited demographic data indicate that the proportion of full-time students is decreasing for nearly all age groups and that the older the age group the lower the proportion of full-time students. Decreases in the traditional college-age group and increases in older age groups imply increased proportions of older, part-time students on college campuses.

The question facing postsecondary finance experts in the next decade is whether current policies and programs can be modified sufficiently to contend with these projected tuition and enrollment conditions. Can the federal government and those states committed to the student-aid model adjust their goals and programs enough to accommodate changing conditions and needs in postsecondary education, or will a different mix of financing mechanisms be required?

The evidence from New York's experience with its Tuition Assistance Program indicates that student aid can be designed and administered to accomplish various objectives. When implemented in conjunction with programs of institutional aid, the possibilities are extensive.

The problems that challenge student-aid policy in the next decade include the general enrollment decline, the accommodation of more part-time students in postsecondary education, and a financial situation that appears

bleak at best. The challenge is at once the basic and complicated task of preserving the higher education establishment with modifications required to meet changing conditions.

PART IV
SPECIAL ISSUES IN FINANCING POLICY

Introduction

The core of the conference was organized around issues central to the fiscal viability of postsecondary education in the 1980s. In keeping with the theme of the conference, each topic was addressed from an institutional and a state perspective; special attention was given to the interaction between the two. A more general purpose of this core activity was simply to enhance participant understanding of the issues and to advance knowledge as to ways of responding to these issues.

CHAPTER 6

Budgeting for Enrollment Decline

The Indiana Experience

Charles Seitz

The publication *Cost Information and Formula Funding: New Approaches* makes the following statement on the Indiana approach to the topic of budgeting for enrollment change.

> *Indiana's innovative use of marginal-costing concepts in the budget process has laid some important groundwork, both analytically and politically. It remains to be seen, however, whether further research or consensus building, or both, can maintain the approach . . .* (NCHEMS, 1979, p. 37).

Beginning with the 1975-76 fiscal year and extending into its recommendations for the 1981-83 biennium, the Indiana Commission for Higher Education has used a marginal-costing approach to budgeting for enrollment change. The commission's 1981-83 recommendations were presented in mid

November, 1980, to the State Budget Committee. The Committee is comprised of one majority and one minority member from each house's finance committee and the State Budget Agency Director, who is the swing political party vote. The commission recommended and the Budget Committee accepted, in its recommendations to the General Assembly on funding for 1981-83, the concept of marginal cost. Thus, the approach has been maintained, and with some exceptions, a consensus as to its validity has been developed.

Essentially this approach uses the results of a cost study based upon the NCHEMS Program Classification Structure and Information Exchange Procedures. Average unit costs are developed, both direct and full, by four-digit HEGIS discipline or department, by course level, by student program, and by student level. These results form the basis for a further summarization into a series of activity levels, each of which has an average full cost.

These average full-cost figures are then used to calculate a net amount of funds, either positive or negative, which is necessary to finance enrollment change. It is assumed that the greater the percentage increase in enrollment, the larger the proportion of average costs which are necessary; if an enrollment decline occurs, the same concept applies. The following factors are used.

MARGINAL COST FACTORS
FOR INCREMENTAL ENROLLMENT CHANGES

Percent Change In Enrollment	1981-83 Marginal Cost Percent Of Average Full Cost
0.1 - 1.0%	22.8%
1.1 - 2.0	28.1
2.1 - 3.0	32.7
3.1 - 4.0	35.7
4.1 - 5.0	38.2
5.1 - 6.0	39.9
6.1 - 7.0	41.4
7.1 - 8.0	42.7
8.1 - 9.0	43.9
9.1 - 10.0	44.8
10.1 - 11.0	45.8
11.1 - 12.0	46.6
12.1 - 13.0	47.4
13.1 - 14.0	47.9
14.1 - 15.0	48.5
15.1 - 20.0	49.7
20.1 - 25.0	51.2
Above 25.0	52.4

The main objections from Indiana's state-supported universities have centered around these factors, although one institution believes that average direct instructional cost is a more appropriate convention. To date, however, the Budget Committee and General Assembly have continued to accept this approach.

An example of how the concept works may be useful. If an enrollment decrease of 10 percent results in the total marginal loss of $100,000, it may be that an institution will receive additional funds since student fee revenues, in this case negative, are netted out prior to the determination of total need. Thus, marginal costing tends to cushion the decreases while not funding to the degree that Indiana public institutions would like the increases. In addition, an after-the-fact accountability adjustment to reflect actual as opposed to estimated annual full-time enrollments is also in place. To insure an enrollment audit, the Indiana Commission for Higher Education has implemented a Student Information System for use in this and other areas.

A positive aspect of the marginal cost approach is that a shift of students from less to more costly programs with a constant total enrollment will not result in a static level of state support. Thus, changes in student mix are adequately addressed using marginal cost.

There are two major concerns, however. First, the actual practice of marginal costing makes no judgments about the kinds of students who are attracted. If one more student, whether traditional or nontraditional, is enrolled this year than last, marginal costing is applied. It seems likely that financial stringencies will require Indiana public higher education to seriously reconsider the expansion syndrome which even today has not completely lost its luster. Even if enrollments remain stable or increase, the state simply may not have the resources to pay for these students.

The second concern is that marginal costing by its very nature may pare the financial support available to areas such as the library and physical plant. It also does nothing to correct funding inadequacies or inequities which already exist. Although not a perfect answer, a budget category for quality maintenance and improvement has been established which at least begins the process of identifying problem areas.

Thus, marginal costing is a part of Indiana public higher education budgeting which is likely to persevere for some time. Improvements to the process are necessary, but the concept itself is alive and well.

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The Virginia Experience

Robert Schultze

Unlike many states, higher education in Virginia has not experienced statewide enrollment declines in the past, nor are declines expected in the future. Current projections call for marginal growth (.5 to 1 percent) in full-time-equivalent enrollments each year throughout the decade of the 1980s. Considering this environment, it may be surprising that enrollment decline is a serious issue in the state. Although stable statewide, enrollments are shifting among institutions, causing decline, stability, and growth in different institutions at the same time. Thus, the challenge is to budget the state's resources in an equitable manner to simultaneously accommodate these various conditions.

Policies for dealing with enrollment decline have taken many forms. Some have been adopted as formal state policy; others have been utilized informally. Some have taken the form of budget guidelines, and others have been adopted outside of the guidelines during the budget review. Still others have been developed through procedures which are only related to the budget indirectly.

The major process affecting budgeting in an indirect way is program approval. Through program approval, destructive competition among institutions can be controlled. Students can, to some degree, be sterred from one institution to another based on available programs. In this way, weak institutions can be controlled. Students can, to some degree, be steered from Furthermore, to the extent that the program approval process can limit the growth in programs, relatively fixed resources need not be spread over an ever-expanding base of programs. Thus, greater funding can be made available to provide above average resources to institutions in decline.

Closely related to program approval is the process of enrollment projections. Informal enrollment ceilings have been applied to certain institutions, and aspirations for enrollment growth have been limited at others. Combined, enrollment projections and program approval determine the mix

and size of programs which are to be supported by the state. In Virginia, both exercises are closely attuned to limiting growth in general and protecting weak institutions in particular.

Another informal policy indirectly related to budgeting for declining enrollment is capital outlay authorization for new dormitory construction. A proposal now generating much discussion calls for a moratorium on the addition of new beds at those institutions which serve primarily commuter students. The objective is to protect the enrollment base and bonded indebtedness of the small residential institutions which otherwise might lose students to the rapidly growing urban institutions.

Some attention has been given to studying opportunities for closing or consolidating institutions and/or campuses. Due to obvious political ramifications, progress in this area has been slow. However, the topic occasionally surfaces as a mechanism for dealing with enrollment decline, and it is being studied on a limited scale.

Most other strategies being used in Virginia to accommodate enrollment decline are a direct part of the budget process. Either formally or informally, most of these strategies recognize the principle of fixed and variable costs. In states which use budget formulae, there appear to be three general approaches to making these formulae sensitive to a fixed and variable cost approach. First, there is the procedure known as decoupling. This entails separating those activities which can be clearly related to nonenrollment measures from those which cannot and developing separate guidelines for each. The simplest example of decoupling is to break apart physical plant costs from the enrollment driven formula in favor of one using a parameter such as assignable square feet. Thus, physical plant costs are decoupled from enrollments.

A second general method is marginal costing. Theoretically, this is the purest method of adopting a fixed and variable approach to funding. Marginal costing requires that resources be categorized into those which vary due to enrollments and those which are fixed regardless of enrollments.

A third approach is known as buffering. It is a method which leaves the current formulae intact and merely describes a process by which changes in formula-generated resources are phased in over time as enrollments increase or decrease from a base period. This method recognizes that institutions need time to adjust their resources in an orderly fashion. In the long run, all costs are considered to be variable under this approach.

All three methods, decoupling, marginal costing, and buffering are employed to some extent in the Virginia budget process. The principle of

decoupling is recognized in the budget guidelines for physical plant and library books and periodicals. Resources in these programs are primarily based upon assignable square footage and the number and type of academic degree programs, respectively. Marginal costing is employed in the programs of student services, institutional support, and for library staffing. Each guideline is composed of a fixed staffing component, regardless of size, and a marginal component based upon enrollments.

The principle of buffering has been recognized in a number of ways. Two years ago the concept of "funding floors" was instituted for instructional programs in community colleges below 1,000 FTE students and in senior colleges below 2,500 FTE students. This method adopts as a guideline for instruction the greater of current staffing levels or the normal staffing generated by use of the enrollment-driven formula. Thus, a small but growing institution is allowed additional resources, but a small declining institution is protected from immediate losses. During the 1980-82 budget review, ten community colleges were eligible for this provision, along with four senior colleges and a junior college.

During the governor's budget review the funding floor provision was informally expanded for most of the above institutions to include non-instructional programs. After establishing a higher education target budget which was below that required to fund fully the guidelines, the governor chose to take most cuts from nonfloored institutions, while leaving floored institutions at or near full guideline funding. Through this mechanism and others, institutions have been given several years to reduce staffing when tighter statewide revenues or enrollment reductions would otherwise have caused immediate cutbacks.

Further emphasizing buffering, a new procedure is being proposed for implementation in 1982-84. If adopted it would provide a formal approach for prioritizing budget cuts. If it is established that statewide revenue forecasts are insufficient to fund fully the higher education guidelines, reductions would be made in the following order:

1. Institutions requesting more than 100 percent of the guidelines would be reduced to 100 percent.
2. Incremental growth in programs and/or enrollments would be funded at a level between the current funding level and 100 percent.
3. Current workload would be funded at a level between the current funding level and 100 percent.
4. Incremental growth in programs and/or enrollments would be funded below current funding levels.
5. Current workload would be funded below current funding levels.

This set of priorities is based upon the premise that preserving the quality of current activities is the state's highest priority. Funding for program expansion is of secondary importance and would most likely be phased in over time depending on available resources.

These are the many ways in which Virginia is adjusting its policies to cope with enrollment decline. The search for new methods will certainly continue. Each state must settle upon funding policies that reflect its unique circumstances. Certain practices which work well in other states may not be right for Virginia. For example, the establishment of an irreducible core of required courses and sections for each program is an attractive method now being tried in some states. However, since Virginia has no control over course content or offerings, it is doubtful that this method would be feasible there. Future efforts in fixed and variable costing will probably be directed at measuring and defining marginal costs and refining the many procedures now in place.

The Ohio Experience

George Baughman

This article presents a method of adjusting student-level based subsidy models to reflect fixed and variable costs. It is not precisely the approach adopted by the Ohio Board of Regents in August, 1980, since enhancements in the physical plant area that have not yet been adopted are included here. The author was technical advisor to the project staff of the Regents.

Four principles of finance apply to the exercise of constructing fixed/variable cost models for state subsidy.

1. Expenditures are *fact;* costs are *opinions.*
2. All costs are variable in the long run, fixed in the short run, and sticky in between.
3. In budget models it is far better to be roughly right now than precisely wrong later.
4. All complex financial problems can be solved by breaking them down into the right small problems, solving those, and then using artistry to weave them back together.

The Ohio Board of Regent's subsidy models were

— developed by John D. Millett in 1966 and based on instructional and general expenditures, net of student fees, with differential expenses for

each of seven categories of expense for each of six levels of course offerings. A resource analysis of expenditures for each of sixty programs followed in 1967-68.

- expanded to include sixteen course-level programs from 1970 to date (see Table 1 for the 1979-80 Expenditure Model Assumptions).
- price indexed by function from 1974 to date.
- buffered with an annual 96 to 98 percent guarantee of the previous year's subsidy since 1976.
- subject to major review every two years from 1966 to 1978.
- criticized in 1978-80 for being insensitive to fixed costs (alternately too sensitive to enrollments—even when buffered).
- subjected to detailed study by four commissioned consulting groups in 1978.
- subjected to detailed study by three major advisory committees in 1979-80: Policy Review Committee of Presidents and Legislators, Academic Issues Committee of Academic Vice Presidents, and Formula Restructuring Committee composed of budget directors.

In short, the findings presented here represent many people examining many expenditure facts and costing opinions from a wide variety of perspectives.

The general goals for restructuring follow.

1. Retain a generalized formula approach as contrasted with consideration of a unique budget for each individual institution.
   a. Avoids substituting specific state-level judgments concerning internal budgets for those of individual institutions and their trustees.
   b. Retains wide latitude for internal budgeting at institutions—no line item controls.
   c. Exposes the key variables in state appropriations for regular state-level debate.
      1) Enrollment forecasts
      2) Inflation allowances
      3) State/student fee shares
      4) Buffering support rationale (fixed/variable cost).

2. Retain the general use of models as a sound expression of the programmatic purposes of higher education.
   a. Maintains primary state focus on the major academic services of higher education, the related expenditure requirements for these services, and the relative shares borne by the state and students.
   b. Continues to recognize the highlight differential costs among program areas and levels of instruction.

c. Assures general equity of support among institutions on the basis of their program commitments.

3. Retain the ability to adjust formulas periodically to reflect actual patterns of institutional expenditure.
   a. Keeps formulas in tune with the reality of actual expenditures.
   b. Underscores that the collective wisdom of institutions is a better measure of real need than the assumptions on which systemwide budgets are built in any given period (Coulter and Rogers, 1980).

Table 1 assumes expenditure models per student as fact; the question is which portion of these costs are fixed and which are variable?

Direct Instruction includes faculty compensation, other compensation, and other expenses.

Academic Support includes library acquisitions and other library expenses along with such items as academic administration, computing, audio visual aids, etc.

TABLE 1
OHIO BOARD OF REGENTS
EXPENDITURE MODELS/FTE STUDENT
1979-80

Course Level Programs		Direct Instruction	Academic Support	Student Services	Physical Plant	Instit. Support	Total
General Studies	I	$ 630	$ 205	$172	$ 205	$328	$1,540
	II	926	257	188	249	312	1,932
	III	1,239	272	188	569	350	2,618
Technical	I	$1,079	$ 157	$188	$ 236	$323	$1,983
	II	1,558	175	188	596	323	2,840
	III	2,115	221	188	399	323	3,246
Baccalaureate	I	$1,387	$ 303	$170	$ 281	$340	$2,481
	II	1,914	353	170	531	340	3,308
	III	2,626	367	170	652	340	4,155
Masters and Professional	I	$2,339	$ 909	$170	$ 426	$340	$4,184
	II	4,191	894	170	828	340	6,423
	III	6,648	1,108	170	1,601	340	9,867
Doctoral	I	$4,229	$ 743	$170	$ 544	$340	6,026
	II	7,926	1,283	170	1,382	340	11,101
Medical	I	$6,527	$1,283	$170	$1,184	$340	$ 9,504
	II	8,367	1,620	170	1,420	350	11,937

Student Services

Plant Operations and Maintenance

Institutional Support includes other logistical and executive administrative services.

The relative cost shares of each category on a statewide basis are:

Direct Instruction	57.0 percent
Academic Support	12.3
Student Services	6.4
Plant O&M	12.8
Institutional Support	11.5
Total	100.00 percent

Using the rule that it "is better to be roughly right than precisely wrong," the following definitions evolved.

FIXED - Relates to something other than enrollments
VARIABLE - Relates directly to enrollments
STICKY - 50 percent Fixed and 50 percent Variable.

With these definitions in mind, the following agreements were reached on a statewide basis.

Direct Instruction. The proportion of first section offerings by level is the fixed proportion for compensation. Other departmental expense is sticky. Calculations resulted in fixed costs ranging from 26.7 percent (General Studies I) to 73.6 percent (Doctoral I).

Academic Support. A weighted program library index method was used to ascertain the fixed cost of library acquisitions. All other academic support costs were sticky. Fixed costs ranged from 51.7 percent (General Studies) to 80.9 percent (Doctoral).

Student Services. All costs were sticky.

Plant Operations and Maintenance. Space was analyzed by type and standard. Unit costs for custodial, utilities, and maintenance are assessed for each space type. Fixed costs include the maintenance of all space plus the custodial and utilities cost of nonclassroom or nonlab space. The custodial and utilities costs of classroom and lab space are variable. It was calculated that these costs are 77 percent fixed and 23 percent variable.

Instructional Support. All costs were sticky.

Table 2 shows statewide findings applied to the unit expenditure data in Table 1 to arrive at the weighted fixed proportion of each model. For example, in the Doctoral I model:

Item	Model Expenditure	Proportion Fixed	Amount Fixed
Direct Instruction	$4,229	.736	$3,112
Academic Support	743	.809	601
Student Services	170	.500	85
Physical Plant	544	.770	419
Institutional Support	340	.500	170
Total	$6,026	.728	$4,387

Using these facts to develop a statement of subsidy need, it is useful to recall that:

1. The collective wisdom of institutional expenditures, space allocations, course offerings, and library holdings have worked their way into the proportions of *fixed.*
2. Fixed has been defined *only* as it relates to enrollments.
3. Subsidy is thought of as expenditures for a student, less fees.
4. Protection against enrollment decline is desired, as is coverage of fixed costs.

The artistry in combining these assumptions is to recognize that a fixed cost pool can either be expressed as a total dollar amount or as a standard cost time base enrollments, for example, with our Doctoral I students, the fixed cost component can either be shown as $18,557,000 or as 4,229 students times .728 fixed times $6,026 standard expenditures ($18,552,319 due to rounding).

Since protecting student capacity is really the major goal, expressing capacity as a base number of students, as opposed to the actual, gives us this formula for total expenditures.

> Total Expenditures = ((Base Enrollments X Proportion Fixed) + (Actual Enrollments X Proportion of Variable)) X Standard Unit Expenditures

If Doctoral I enrollments declined by 5.4 percent or 229 students, total expenditures would be as follows:

Total Expenditures = ((4,229 X .728) + (4,000 X .272)) X $6,026
= (3,078 + 1,088) X $6,026
4,166 X $6,026 or $25,104,316

Adjusting for expected fees paid is more difficult since an institution should not be penalized unduly by loss of fee income. In this case the total expected expenditures for all programs are calculated and the actual enrollments times the standard fees are then subtracted from it to arrive at subsidy as in the

TABLE 3

SAMPLE STATEWIDE CALCULATION OF TOTAL AND FIXED EXPENDITURES BY MODEL AND COMPONENT BEFORE RESOURCE ANALYSIS ADJUSTMENTS AND INSTITUTIONAL MODIFIERS 1979-1980

MODEL		Direct Instruction	Academic Support	Student Services	Physical Plant	Institutional Support	Total	Weighted Proportion of Fixed	Total FTE 1979-80	Total Expenditures (000)	Fixed Expenditures (000)
GENERAL STUDIES	I	$ 630	$ 205	$ 172	$ 205	$ 328	$ 1,540		38,097	$ 58,669	$ 25,982
		.267	.517	.500	.770	.500	.682	.443			
	II	$ 926	$ 257	$ 188	$ 249	$ 312	$ 1,932		57,677	$111,432	$ 47,353
		.366	.517	.500	.770	.500	.821	.425			
	III	$1,239	$ 272	$ 188	$ 569	$ 350	$ 2,618		13,795	$ 36,115	$ 16,582
		.286	.517	.500	.770	.500	1,202	.439			
TECHNICAL	I	$1,079	$ 157	$ 188	$ 236	$ 323	$ 1,983		20,516	$ 40,683	$ 23,901
		.590	.582	.500	.770	.500	1.165	.588			
	II	$1,558	$ 175	$ 188	$ 596	$ 323	$ 2,840		1,243	$ 3,530	$ 2,162
		.592	.582	.500	.770	.500	1.739	.612			
	III	$2,115	$ 221	$ 188	$ 399	$ 323	$ 3,246		13,195	$ 42,831	$ 25,611
		.591	.582	.500	.770	.500	1.941	.590			
BACCALAUREATE	I	$1,387	$ 303	$ 170	$ 281	$ 340	$ 2,481		63,846	$158,402	$93,662
		.592	.575	.500	.770	.500	1.467	.591			
	II	$1,914	$ 353	$ 170	$ 831	$ 340	$ 3,308		26,301	$ 87,268	$ 52,762
		.592	.575	.500	.770	.500	2.000	.605			
	III	$2,626	$ 367	$ 170	$ 652	$ 340	$ 4,155		22,332	$ 92,789	$ 56,634
		.597	.575	.500	.770	.500	2.536	.610			
								.546	257,082	$631,719	$344,649
MASTERS & PROFESSIONALS	I	$2,339	$ 909	$ 170	$ 436	$ 340	$ 4,184		11,313	$ 47,334	$ 32,751
		.727	.673	.500	.770	.500	2.895	.692			
	II	$4,191	$ 894	$ 170	$ 828	$ 340	$ 6,423		6,851	$ 44,004	$ 31,371
		.736	.673	.500	.770	.500	4.579	.713			
	III	$6,648	$1,108	$ 170	$1,601	$ 340	$ 9,867		2,481	$ 24,480	$ 17,203
		.707	.673	.500	.770	.500	6.934	.703			
DOCTORAL	I	$4,229	$ 743	$ 170	$ 544	$ 340	$ 6,026		4,229	$ 25,484	$ 18,557
		.736	.809	.500	.770	.500	4.388	.728			
	II	$7,926	$1,283	$ 170	$1,382	$ 340	$11,101		2,299	$ 25,410	$ 18,458
		.720	.809	.500	.770	.500	8.064	.726			
								.710	27,163	$166,712	$118,340
MEDICAL	I	$6,527	$1,283	$ 170	$1,184	$ 340	$ 9,504		1,671	$ 15,881	$ 11,139
		.705	.700	.500	.770	.500	6.666	.701			
	II	$8,367	$1,620	$ 170	$1,420	$ 340	$11,937		3,080	$ 36,766	$ 26,072
		.715	.700	.500	.770	.500	$ 8,465	.709			
								.707	4,751	$ 52,647	$ 37,211
TOTAL								.588	288,996	$851,078	$500,200

NOTE: The first line within a Model represents the original 1979-80 Expenditure Models by component. The second line is the proportion of fixed expenditures for each component within the Mode.

following example using the Doctoral I model:

Subsidy = Total Expenditures - (Actual Enrollments X Standard Fees)
= $25,104,316 - (4,000 x $1,500)
= $25,104,316 - $6,000,000
= $19,104,316

In practice the Ohio Board of Regents' system currently does not incorporate the fixed/variable proportion for Physical Plant but instead calculates a flat amount per institution based on number of square feet of different kinds of space times standard costs for that space. Expenditures are adjusted with an inflation model, all growth situations are calculated as simply linear, and adjustments for instructional compensation for large day/evening offerings and small campus situations are made. The system adjusts student services expenditure factors for a high proportion of part-time enrollments and adjusts utilities and custodial factors for high classroom and lab usage.

Comparisons were made between the total expenditure/subsidy implications of this approach and the 98 percent subsidy buffering rule that had been in effect. This method offers superior protection in cases of enrollment declines of up to 10 percent and much more defensible protection with declines that are even more severe.

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CHAPTER 7

Managing Fiscal Crisis

The California Experience

William Pickens

There are two general types of fiscal crises, and educational institutions in most states will suffer at least one of them during the 1980s. The first crisis results from declining enrollments in the face of formulas established during

an era of expansion. Institutions cannot retrace their fiscal steps and maintain any semblance of order or vigor. This type of crisis is less severe, however, if states have developed formulas that accurately reflect the costs of adding students or the actual savings from enrolling fewer. The second type of crisis occurs when falling state revenues or tax and expenditure limitations force reductions of institutional budgets without reference to enrollment. Since the foundation of most formulas for public institutions rest on their predictable response to workload changes, this kind of crisis causes traumas to budgeting and planning which often exceed the dollar loss. My concern is this second crisis.

In contrast to the challenge of declining enrollments where certain approaches are clearly superior to others, there are few optimal ways for a state to impose reductions which are not workload related. Generally, these situations stem from limitations that legally reduce the state's ability to raise or spend revenues or from an eroding tax base, which prevents all activities from being supported at their historic levels. Because these crises rarely allow adequate time for planning or discussion, most states impose reductions in an ad hoc fashion.

Despite this pattern, my central thesis is that some strategies are better than others when states consider emergency reductions in the budgets of their postsecondary institutions. My focus is not on how the state should determine the size of the total reduction but on ways of imposing the reduction once its size is determined. This paper will describe these emergencies and possible state responses in general and then turn for specific examples to California's experience after Proposition 13.

Whether to specify the reductions or allow flexibility to the institutions is the central issue for the legislature during a fiscal crisis. Governing boards and administrators will ask for maximum freedom to impose cuts; special interests will urge that their programs be protected by statute. Where should the balance be struck?

Clearly, there is no optimum balance for all situations. Much depends on each state's history and its current system of finance. One important consideration is whether the revenue shortfall will be short-term and temporary or long-term and permanent. If temporary, across-the-board reductions or maximum flexibility are quite appropriate. If permanent, the state should first focus on its priority among quality, diversity, access, research, and community services. Admittedly, this is a frustrating and unproductive exercise if conducted only in the abstract. However, once certain priorities are established and the dollar trade-offs among them are estimated, details of funding and some specific actions should become more apparent. During a major crisis, it is important for the state to adopt a

consistent strategy that synthesizes its general priorities for all institutions and imposes reductions consistent with these priorities. Abandoning priorities and policies in order to reduce budgets across-the-board is a questionable strategy, especially if the reductions are likely to be permanent.

As a first step, it is important to consider the limitations on the state's effective action. Contracts and commitments to enrolled students impose serious limits on retrenchment in the short run. Realistically, those portions of institutional budgets or those sources of revenue which are most readily available for legislative action are the following:

— cost-of-living adjustments for salaries
— a hiring freeze
— inflation increases for operations and equipment
— faculty workload (student/faculty ratio)
— capital outlay
— tuition and fees

In choosing among these specific reductions or additional revenues, the missions of institutions are important. As an example, a priority to maintain open access and comprehensive community colleges suggests that large increases in tuition should be a strategy of last resort, even if federal student aid will cover some of the increases. Alternately, if the state wishes to maintain the competitive ability of its distinguished research university, salaries comparable with similar institutions takes on additional importance.

In responding to a fiscal crisis, a state should invoke at least three actions. First, a discretionary fund specifically for unanticipated emergencies is a sound approach. The larger the reductions, the larger should be the fund. Second, the state should encourage consultation with all parties affected by cuts before the institutions make their final decisions. Third, the legislature should require extensive reports on the effects of reductions. These legislative strategies will not make cuts less painful, but they can smooth the transition and provide for an informed review by the state.

Proposition 13 added four hundred words to the California Constitution on June 6, 1978. The amendment established a maximum one percent tax rate of the "full cash value" for all property and defined *value* as the amount established for the 1975-76 fiscal year plus a two percent annual increase. It abolished all "over-ride property taxes" above the one percent level and required a two-thirds vote at all levels of government to increase any tax. In terms of dollars, Proposition 13 eliminated $6.9 billion from the property tax collections projected for 1978-79, a 57 percent statewide reduction. In one day the government of California lost almost one-fourth of its projected revenues from state and local taxes. The loss, of course, was offset by estimates of a state budget surplus ranging between $3 and $5 billion.

The community colleges had the most to lose since they were the only institutions of higher education which received property tax revenues. Proposition 13 drastically altered the system of community college finance, not only by reducing property tax revenues, but also by making their collection countywide rather than districtwide and by eliminating each district's authority to set its tax rate and to raise or lower that rate based on local circumstances. This local levy was the core support for the colleges because state apportionments had been based on the relative ability and willingness of the districts to tax themselves. By making the Legislature responsible for distributing property tax revenues, Proposition 13 destroyed the core of the finance system.

To meet the immediate crisis of community college finance for 1978-79, the Legislature agreed in SB 154 to distribute the regular state apportionments projected for that year ($537 million) without regard to enrollment. In addition the community college districts received $260 million from the State's surplus, which was distributed according to a target budget approach. Before determining how much each district would receive from the surplus, its individual budget was calculated by adding its projected State apportionments, a small percentage of its reserves (only $20 million statewide), and its projected revenues from the remaining property taxes. Each district then received enough of the $260 million to reach 85 percent of its 1977-78 budget, adjusted upward by 6.8 percent for inflation. Larger property tax revenues than originally expected meant that each district in 1978-79 received roughly 95 percent of its 1977-78 revenues in actual dollars.

Although the target budget approach immediately after Proposition 13 allowed districts to maintain most of their traditional discretion in budgeting, the Legislature did impose some significant restrictions. Districts could not use State apportionments to support certain noncredit courses, primarily recreational and avocational offerings. Except for these nonstate funded classes, the Legislature continued its statutory prohibition of tuition for California residents. In addition, districts had to maintain a proportional level of service (85 percent of 1977-78 funding) in a dozen different programs the legislature considered of prime importance. The Chancellor of the community college system was authorized to distribute up to $15 million of the apportionments to insure that all colleges would remain open and fiscal emergencies could be averted. Finally, no state funds would be available to districts that provided cost-of-living salary increases to their employees, a provision later declared unconstitutional by the State Supreme Court.

In sum the State's approach to community college finance in SB 154 was a hybrid. It was heavily influenced by the pattern of funding for the public schools rather than the pattern for the four-year segments. It reflected an unwillingness to shift property tax distribution at that time, a desire to

maintain local governance, an insistence on statewide policies for salary adjustments, and a desire to protect certain Legislative priorities. Most significantly, the "bail-out" increased the State's proportion of community college revenue up to 70 percent, even though the colleges received less total income for 1978-79 than for the previous year. This catapulted the community colleges from third to first among the three segments in terms of state revenues for current operations (see Figure 1).

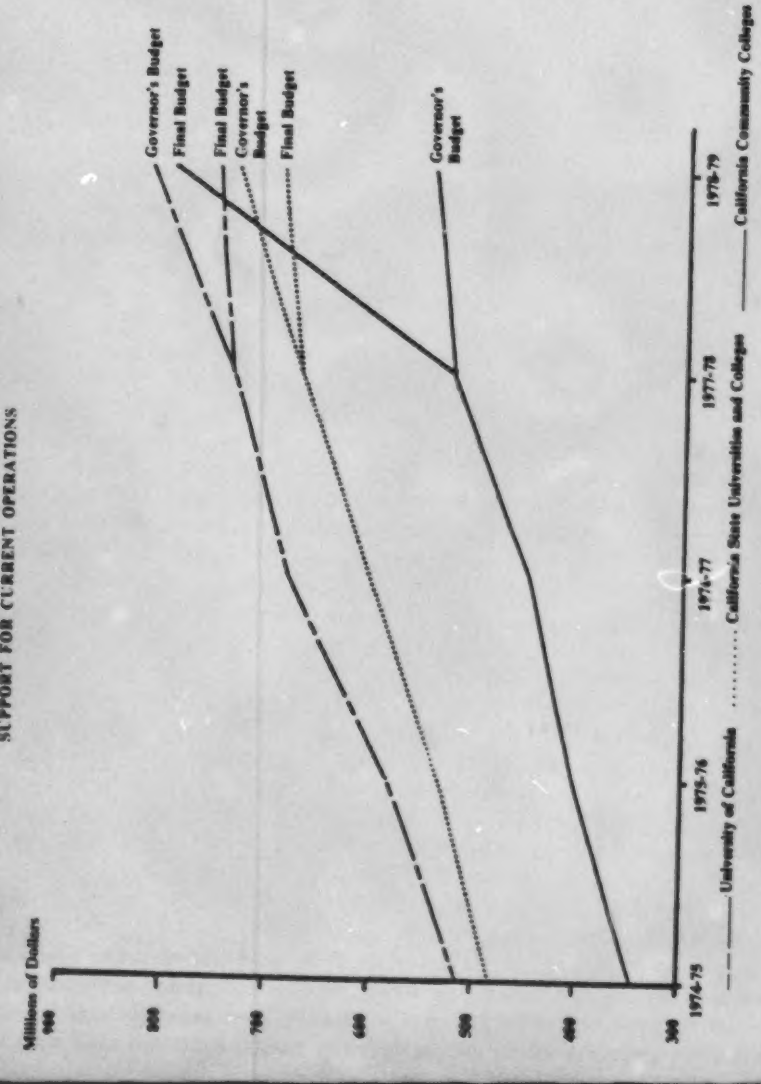

FIGURE 1

The State's reductions for the University of California and the California State University and Colleges assumed a different form, partly because they received no property taxes and partly because they were funded in line items within the annual budget act. Published in January, 1978, the governor's budget projected $819,177,000 for the University in 1978-79, including a 5 percent cost-of-living increase for salaries. Likewise, the governor's budget projected funding for the State University at $733,970,000 with a similar salary adjustment. The legislature had not changed these levels significantly before Proposition 13.

The final budget act was quite different. Virtually all augmentations had been eliminated. The major reductions for the University were for instructional computing, equipment replacement, and research. On the other hand, the Legislature continued certain augmentations: faculty and staff development for affirmative action, a new program to train doctors in Watts, an outreach program for minorities in the public schools, and some funds to implement the University's ten-year library plan. For salaries, the budget act provided merit adjustments but no cost-of-living increases. Further, members of the Legislature were unwilling to adopt the full extent of the governor's recommended 5 percent reduction in the item *Operations Expense and Equipment*, which they consider too arbitrary for higher education. Rather, they agreed to a compromise whereby a total dollar amount would be withdrawn from all State agencies after passage of the budget act, the exact proportion being negotiated with the Department of Finance. Finally, the Assembly Ways and Means Committee was concerned that the University of California had the constitutional autonomy to increase fees or impose tuition unilaterally and, alone among all the segments, to replace funds reduced after Proposition 13. After weighing alternatives, the Committee adopted budget language which reduced the University's general fund appropriations by the amount of revenues received from any increase of fees or from the imposition of tuition. This provision was eliminated when the University's president agreed not to increase fees.

The California Legislature adjourned on July 8, 1978, having distributed $4.2 billion of its surplus to replace lost property taxes and having reduced the state's projected expenditures by 7 percent. As Table 1 indicates, the budgets of the segments of higher education were not cut equally, but all experienced significant reductions in the wake of Proposition 13.

The consequences of property tax limitation and the state's response would take months, indeed years, to be fully apparent. It was clear, however, that Proposition 13 forced the legislature and the governor to make difficult decisions quickly and they did so, balancing experimentation with caution. Even during the confused situation of June, 1978, it was generally understood that most decisions could not be reversed easily. Although California's

situation is unique in many ways, there appear to be some lessons which might prove instructive for states facing revenue shortfalls.

First, it was important to understand that the nature of the crisis was different for the three segments. Proposition 13 ended the system of local taxes for the community colleges by elminating district control over property taxes. The State has yet to agree on a permanent system for their finance due to the dilemma of reconciling local authority over budgets with the State's right to control and monitor its appropriations. In contrast, reductions for the University and State University were compatible with their system of finance, if not with their stability as institutions. Further, the State's "bail-out" placed the community colleges first in State general funds among the segments, and the implications of this change were not lost on the colleges. "This may involve serious evaluation [by the state], in some ways for the first time, of the community college product," the Chancellor's staff told the Board of Governors (California Community Colleges, 1978, p. 6).

TABLE 1

THE 1978-79 STATE BUDGET FROM ORIGINAL REQUESTS TO THE FINAL APPROPRIATIONS FOR THE SEGMENTS OF PUBLIC POSTSECONDARY EDUCATION IN CALIFORNIA

Segment	Requested by Governing Board	Amount in 1978-79 Governor's Budget	Percent Difference from Request	Amount in 1978-79 Budget Act	Percent Difference from 1978-79 Governor's Budget
University of California	$864,067,000[a]	$819,177,000	-5.2%	$752,645,000[c]	-8.1%
California State University and Colleges	$774,754,000[b]	$733,970,000	-5.3%	$691,934,000[d]	-5.7%
California Community College - State Only	Not Applicable	$566,718,000	-----	$816,962,000[e]	+44.2%
California Community Colleges - State & Local	$1,212,780,202[e] (total income, 1977-78)	Not Applicable	-----	$1,124,412,431[e] (total income, 1978-79)	Not Applicable

[a] This includes a request for 9.3 percent increases in the Budget line item, Salaries and Fringe Benefits, over the 1977-78 level. The Governor's Budget provided a 5 percent increase which is included in the column to the right.

[b] This includes a 9.9 percent increase in the Budget line item, Salaries and Fringe Benefits, over the 1977-78 level. The Governor's Budget provided a 5 percent increase which is included in the column to the right.

[c] This amount is $15.4 million less than the University's line item amount in the 1978-79 Budget Act because of reductions authorized in Budget Control Sections 27.1 and 27.2. These reductions were negotiated between the University and the Department of Finance.

[d] This amount is $14.1 million less than the State University's line item amount in the 1978-79 Budget Act because of reductions authorized in Budget Control Sections 27.1 and 27.2. These reductions were negotiated between the State University and the Department of Finance.

[e] The Governor's Budget does not display an amount including property tax revenues for the Community Colleges. A reasonable estimate is that the $1.124 million actually received by the colleges in 1978-79 is roughly 15% less than they would have received without Proposition 13.

Second, the disruption of community college finance and its feared impact on enrollment led the institutions to urge use of a target budget approach without enrollment sensitivity, an approach which could provide some certainty in the face of large reductions. This is a very serious change in policy, even for only a year, one which in retrospect should have been considered more carefully in California. Once enrollment-based funding was suspended, many districts were reluctant to return to enrollment funding and equalization and lobbied later for a second year of target budgets. Even during a major crisis, some kind of enrollment sensitivity for funding seems advisable, perhaps with some revenue loss maximum to protect institutions from precipitous declines.

Third, the State attempted to regulate the allocation process within the community colleges in unprecedented ways in 1978-79, primarily through maintenance of effort provisions and restrictions on salary increases. The maintenance provisions were a compromise: while the State avoided statewide standards for curricula, it did require that the districts live, in effect, with many of their 1977 curricular decisions. Although several districts objected to any restrictions on flexibility, the maintenance of effort approach during a crisis appears to be a reasonable compromise between state priorities and institutional control.

More importantly, however, is the reality that even if the Legislature had included none of the 1978 restrictions, each district's flexibility would have been seriously limited by the many provisions in California's Education Code which mandate certain activities and prevent layoffs. Due to these restrictions, not the mandates of 1978, the response among districts was remarkably similar: large numbers of nontenured faculty were released and major reductions were imposed on community, student, and academic services—areas not protected by existing law. If a state wishes to provide more flexibility to its institutions during a crisis, it should consider all laws which apply to them and not deal only with provisions in the funding formula.

Finally, cost-of-living adjustments were an attractive reduction because they represented a large amount of money identified in a single line item. Further, their loss did not force institutions to cancel courses or dismiss personnel. However, California's experience suggests that pressures for salary increases will grow irresistibly after a freeze, and that a large salary increase or destructive turmoil within the institutions is likely soon. Although alluring as a temporary expedient, a salary freeze is a poor device if used to avoid program or personnel reductions, especially if the fiscal limits are permanent.

Proposition 13 has forced California to consider seriously its priorities among quality, diversity, access, research, public service, and community

activities. Given the State's tradition of educational opportunity and its strong economy, this has been a new and agonizing experience, even though Proposition 13 and its ballot successors have not inflicted the havoc widely feared. Nevertheless, there is a growing conviction that priorities and the tradeoffs among them are a prime order of statewide business during the early 1980s.

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The Wisconsin Experience

George Hyer

This article describes the relationship between the Wisconsin executive and legislative branches and the University of Wisconsin System (UWS) in managing immediate and long-term reductions in resources, makes observations about that relationship, and comments on ways the UWS has made budget reductions. The discussion will be put in context by describing the trend in financing higher education in Wisconsin during the 1970s and suggesting possible trends in the 1980s.

The 1970s were a time of increasing appropriations to the UWS, however, those appropriations did not keep pace with the rate of inflation or the increasing number of students. This is a substantial change from the 1950s and 1960s when state support per student remained almost constant in real dollars. From 1972-73 to 1979-80 UWS general purpose revenue (GPR) appropriations as a percentage of all State operations GPR appropriations declined from 49 percent to 38 percent. The UWS GPR appropriation as a percentage of the total State GPR budget also declined from 26 to 19 percent. Full-time-equivalent enrollments increased during this time by 7,700 (6.5 percent). GPR/student fee support per student increased 62 percent from 1972-73 to 1979-80, but in real dollars it declined 6 percent.

This decline in support can be attributed to several factors. The impact of inflation was not fully offset, 36 percent of the enrollment growth was not funded, and all agencies had base budget reductions in 1973-1975 of 2.5 percent per year as productivity improvements and savings. Even with

these reductions in support, Wisconsin still ranks seventeenth in appropriations per $1,000 of personal income and eighteenth in appropriations per capita. Both indicators suggest Wisconsin still supports higher education at significantly above the national average.

Before speculating on the trends for the 1980s, I want to discuss the relationship in making short and long-term reductions in resources. State government has always provided the University flexibility and independence in managing its affairs. This flexibility is built into the budgeting structure. Wisconsin has a program budget system, and the UWS has a single general purpose revenue appropriation. The UWS may, without prior approval, make transfers between institutions and budget lines. This flexibility has been provided because since 1972 Wisconsin has had a merged higher education system. A sixteen-member Board of Regents, president, and central administrative staff manage two institutions with undergraduate through doctoral programs, eleven universities with undergraduate and selected graduate programs, and fourteen two-year liberal arts transfer institutions.

Several specific examples highlight the University's flexibility. In June, 1980, one month prior to the start of the 1981 fiscal year, revenues were projected to be 4.4 percent ($154 million) less than appropriations. Statutes permit the executive branch to reduce agency expenditures without legislative approval if revenues are insufficient. The Governor ordered all appropriations reduced 4.4 percent, and agencies were permitted to reduce their operations without executive direction. The University had projected a 8.5 percent appropriations increase between 1979-80 and 1980-81. Instead, their portion of the 4.4 percent reduction amounted to an $18.5 million cut in appropriations. Enrollments, which were anticipated to increase 1 percent, actually increased 3.6 percent.

Systemwide the following actions were taken to manage the reduction in GPR support. First-semester tuition was increased $30 to generate an additional $3.95 million in revenue. Energy conservation efforts will be expanded to reduce energy expenditures an additional $4 million. Reserve balances of $1.5 million were eliminated, and the balance ($9.05 million) will be generated by each institution through programmatic changes. UWS may also continue the thirty-dollar surcharge for the second semester. It is anticipated that 59 percent of the savings systemwide will result from reductions in salaries and fringe benefit expenditures, 15 percent from supplies and expenses, 25 percent from permanent property, and 1 percent from aid to individuals. It appears that instruction and library programs are absorbing over one-half the cut, slightly more than their prorated share. Physical plant, general operations and services, research, and student services are absorbing less than their prorated share of the cut. Each campus has managed the reduction differently; but, in general, campuses have:

1. not filled vacant positions or slowed recruitment,
2. delayed replacing capital equipment,
3. delayed purchasing library books or physical plant equipment,
4. eliminated course offerings or decreased the number of sections available,
5. deferred building maintenance, and
6. restricted travel.

It is important for state executives to provide flexibility to universities or other agencies to manage unanticipated short-term budget reductions. Managers closest to the program have a better understanding of how to make the reductions in the best manner. In general, the president and system administration have been cooperative in making the cuts. However, several chancellors are claiming a quality crisis and taking extreme measures, such as suspending all library book purchases.

Least affected by the cut seems to be the University system itself. The actual programmatic reduction at the University has been 2.2 rather than 4.4 percent because of the tuition increase and substantial energy conservation measures. If the tuition surcharge is continued for the second semester, the programmatic cut will be approximately 1.3 percent. Further, unanticipated increases in student enrollment have generated revenue in excess of the cost of those students. This revenue can be used to further offset the 4.4 percent reduction. I believe the UWS can manage an actual programmatic reduction of 2.2 percent or less without adverse impacts on quality or access and that the University could have managed the reduction without increasing tuition. Students should not have to bear the burden of state revenue shortfalls.

Wisconsin has also experienced longer-term program and resource reductions. An enrollment funding formula has always been used to adjust dollars and positions as enrollments increased or decreased. The formula generates an aggregate dollar and position level which the Regents allocate among institutions and programs. There are two more specific instances of executive and legislative involvement in UWS management of programs and resource reductions. In 1975, the Governor requested the University to evaluate how they would approach and manage phasing down and/or out programs and institutions. The request was made because enrollments were projected to decline in the next decade, and projected and available resources were scarce. The Governor believed the State would be unable to fund more than salary and inflationary increases. Further, two institutions had been declining for several years, and some legislators were suggesting they be closed.

The Regent's 1975 report on reducing the scope of the University of Wisconsin suggested criteria for a six-year phase out of institutions,

programs, and base budget reductions based on the Governor's forecasts. However, the Regents suggested it was inappropriate and premature to reduce the scope of the system. The report also described internal management processes which had been established to deal with declines in the future. They included a four-year fiscal and enrollment planning cycle, management criteria for evaluating support levels, and minimum enrollments for different types of institutions. A detailed explanation of their report is less important than the fact that the Governor was contemplating phasing down support and asked the Regents for advice, discussion, and alternatives. It is also important to note that there was executive and legislative concern about two institutions, and the executive preferred to encourage the University to deal with them. Internal processes to contend with declines had been established, and no further actions were taken since there was no immediate decline in enrollments or State revenues.

Since the Regent's SCOPE report, the two institutions discussed during 1975 continued to be problems. They had extremely low enrollments and high costs compared to similar campuses in the system. Institutions with unfunded enrollment growth complained that the two problem institutions were being supported at their expense. The Regents requested suspension of the enrollment funding formula in order to protect these institutions. There was a general feeling that UWS had not kept the management promises made in the SCOPE report and could not forcefully deal with these problem institutions without additional direction.

In the last session, the Legislature mandated the UWS:

- Review missions, program arrays, and issues of faculty tenure and tenure density in light of enrollment levels and make changes as appropriate.
- Establish processes to develop and review institutional plans for program reductions and mission changes as enrollments decline.
- Close or reduce the size and mission of institutions which cannot be sustained within 30 percent of the average support for comparable institutions in the system.
- Report to the Governor and Legislature on processes and plans developed.

The UWS has completed their report. They have extended the internal planning cycle from four to six years in order to identify problem institutions earlier. They have also established more specific management guidelines or "tripwires" to indicate problem institutions. These tripwires deal with excessive, unanticipated increases in support levels; large, sudden or projected enrollment declines; significant increases or excessive levels of fixed instructional costs; limited total staff flexibility; excessive tenure density; and

support levels exceeding 30 percent of the average for comparable system institutions. Institutions which exceed these tripwires must report to the Regents on plans for reducing their size, mission, and program. The two problem institutions have also been dealt with. The Regents have proposed closing one two-year center which currently has less than 100 FTE students and significantly altering one four-year institution at which enrollments have declined for the past ten years. The four-year institution will lose $1.75 million and forty tenured faculty over four years.

Several conclusions can be drawn from these experiences in Wisconsin. It is appropriate that a university system have flexibility in making long-range educational program decisions. However, the decentralized management of higher education makes it difficult for systems to alter significantly or eliminate institutions, and the time frame for doing so is extremely long. In order to achieve these changes, executives and legislators can and should establish parameters, especially cost parameters, which are specific enough to force higher education institutions to deal with problems in a long-term and comprehensive manner. Finally, institutions which do not manage in an educationally responsible manner within political and economic constraints run the risk of potentially more detailed intrusions by executives and legislatures.

The 1981-1983 budget cycle will be extremely difficult. It is not likely that inflationary or workload cost increases will be funded for all of State government without major program reductions or tax increases. The possibility for any new program initiatives is almost nonexistent. This year's 4.4 percent reductions may be continued in order to provide revenue for new initiatives. The University budget requires a 3 percent annual increase in order to fund workload and cost increases. Every attempt will be made to provide the additional 3 percent, but requests for new program funding are not likely to be supported. Students may be required to pay a greater share of their educational costs.

University of Wisconsin System enrollments are expected to decline 10 percent by 1987. Enrollments will then be at approximately the 1969 levels. Given the political climate and the indexing of Wisconsin's income tax brackets, I do not expect State revenues to increase substantially. The Legislature and the Executive, therefore, must continue to require reductions in the UWS budget as enrollments decline. It is not likely during the 1980s that the UWS will be able to restore its budget support to the level it enjoyed in the 1950s and 1960s.

The University of Washington Experience

Robert Thompson

What does "managing fiscal crisis" mean? The dictionary defines *managing* as the act of controlling and directing; *fiscal* as of or pertaining to financial matters; and *crisis* as the decisive moment, or turning point, or a crucial time. Thus, this theme could be viewed as the act of controlling, building, and directing programs at a financially crucial point in time. It could be further viewed as the act of staying on one's feet as the ladder is being cut out from under you and somehow landing upright on your feet capable of continuing as before. The accomplishment of such a feat is no small task; it requires quick reflexes, sound judgment, physical stamina, and a cool head. Likewise, management of fiscal crises will require many of these attributes and more.

In addressing states and institutions and their interactions, it should first be noted that success will be related to the extent the management process is preceived and operated as a partnership. The management of a fiscal crisis must be conducted in a coordinated and cooperative fashion to achieve the best result for all concerned. It must include representatives at all levels from the legislature to the institution, independent of state government structures. Hopefully, various intermediary agencies can facilitate the best possible outcome through a well thought out and coordinated process, a positive attitude and good analysis.

While the participation of all interested and concerned parties is important, this paper will concentrate on the institutional perspective to the management of a fiscal crisis and then relate that perspective to the state/institution interface. The paper will assume a fiscal crisis without specificity as to cause or how it may have been avoided and will thus focus on developing an appropriate response.

Institutional perspective is the view of those who are on the receiving end of the policy directions emanating from above but who are responsible for actually delivering the services to the general public. It is the institutions, through the faculty and staff, who ultimately provide instructional and related services to students and the general public. The view of faculty and staff and their representatives is thus crucial to the management of any fiscal crisis because it is the faculty and staff who must, in the end, adapt their behavior to the directions and policies which come from above. Without the complete cooperation and understanding of those who actually deliver the products, a fiscal crisis will not be managed, and the institution may drift aimlessly.

A number of issues must be addressed at the institutional level in the management of any fiscal crisis. They concern not only policy but the process of implementation. Institutional decision making during a fiscal crisis could be viewed from the following framework.

1. Causal Factors. The identification of causal factors (or the nature of the crisis facing the institution) which impact and condition the range of appropriate responses.
2. Assumptions. The delineation of assumptions regarding the causal factors and the present and future environment (social, political, and economic) within which the institution must function.
3. Process. The establishment of a process by which decisions will be made, including an identification of participants at various levels and points in the process, the development of schedules, the gathering and presentation of data, the identification of alternatives, the determination of choices, and appeals to the decisions so rendered.
4. Criteria. The development of criteria to guide decision making at all levels throughout the institution.
5. Decisions. The choices among alternative courses of action.

All of the above elements are present in the decision-making process in an institutional setting, and they must be discussed and delineated sufficiently to ensure that the fiscal crisis is, in fact, managed. Given the generalized nature of this paper, only process and criteria will be addressed to any extent.

The response to a fiscal crisis will depend in large part on the nature of the crisis. The cause of a crisis is a key element in the consideration of alternative responses. Is the crisis precipitated as a result of statewide revenue shortfalls, shifts in state priorities among competing programs, a shortfall in clientele seeking specific services, or a combination of any or all of the above? The state and/or institutional response to the fiscal crises outlined above will vary depending upon the relative emphases of these three factors. A second key element in any response to a fiscal crisis is the extent to which the crisis is viewed as having a short-term or long-term nature. The response to a short-term crisis will usually be significantly different from the response to a long-term crisis. Additionally, one should note that there is potential for considerable interaction between long-term and short-term viewpoints, with either one potentially able to turn into the other. A third element affecting the response to a fiscal crisis is the extent to which that crisis is general or localized. A general crisis affecting all of state government may induce a certain set of responses whereas other crises affecting only certain elements of state government (for example, programs or revenue sources) will induce other responses. The last element relating to the nature of the crisis is the underlying social/political/economic forces at work in the state and the

circumstances of the moment. This fourth element usually plays a key role in the actual responses to fiscal crises and can serve to limit significantly the range of alternate responses. In fact, such forces can effectively determine the final outcome to a fiscal problem.

While the nature of the crisis will determine to a large degree how the crisis will be managed, the number of scenarios with respect to fiscal crises are virtually limitless. This paper will not attempt to deal with the range of possible responses on this significant variable, although it recognizes the importance to the ultimate response.

The management of fiscal crisis at the institutional level will succeed or fail depending on the extent to which all the actors participate. Here again, it is extremely important that those who are responsible for actually providing the instruction, research, public service, and support services are involved in the decision-making process to assure the best possible results are forthcoming and can be implemented to achieve institutional objectives. Thus consultation with faculty, staff, students, the general public, alumni, etc., must take place at all levels where such consultation is appropriate to the ultimate conduct of the programs of the institution.

While consultation is crucial to the management of fiscal crises, questions of timing must also be addressed in a sensitive manner. It must be recognized that the fiscal management process takes months of consulting in a complex and diverse institution of higher education with multiple participants, both actual and perceived. Not only does it take months to plan and consult on possible courses of action, it takes additional time to develop specific plans to implement decisions and even more time to execute them. Time is of concern to students in programs that are slated for elimination, to faculty and staff who must receive adequate notice of termination, to managers who must provide educational services to programs that remain, and to those who must ultimately make decisions affecting the lives of people in the program. It is, therefore, extremely important that all involved in the management of a fiscal crisis be sensitive to scheduling and timing requirements in planning and implementing change, particularly during a fiscal crisis.

Another significant factor is the recognition of all decision makers from the legislature through the institutional manager that educational programs cannot be started and stopped like an assembly line. The nature of the educational process is such that significant capital resource investments and long lead times require a long-term approach to educational decision making and make it imperative that state decision makers are not premature in their resolutions with regard to fiscal crises in higher education. One does not begin to dismantle a higher education program unless it is absolutely required

because once the decision has been made (or is thought to be forthcoming) a chain of events is set into motion which is difficult to reverse. This long-term programming requirement has a significant impact on the alternatives actually available to higher education institutional administrators with respect to fiscal crises. It is extremely difficult to turn to program elimination as a significant means to answer a fiscal crisis. Program elimination options will provide only a very small portion of the answer because it takes an extensive amount of time to accomplish and very little cost savings will be realized. Institutional responses to fiscal crises will, no doubt, stem substantially from changes in levels of activity and program service levels rather than program eliminations.

The management of fiscal crisis in an institution is difficult and complex. Institutional administrators at all levels must consider a myriad of factors in the development of alternative responses and the choice of a specific response. While it is impossible to develop a complete list of such factors, the list provided below identifies a number of factors encountered in recent budget cuts at the University of Washington.

1. Institutional administrators must make selective choices based on doing fewer things well, rather than all things less well. Across-the-board approaches to fiscal crises are usually not appropriate responses because they assume the status quo and its validity.
2. Institutional budget reductions should always be viewed from a long-term perspective, even if the nature of the crisis is short term and short-term responses are appropriate. It is important that all decisions in an institution reflect the longer-range directions and overriding goals and objectives of the institution.
3. Resource allocation, especially in a time of fiscal crisis, should reflect a proper balance among basic academic programs and necessary support services. This balance is important to the continuing health of the institution and must be recognized from the outset. Budget-cutting approaches which focus on administrative and other support services while protecting academic programs without a concern for proper balance will not result in desirable outcomes.
4. An overriding objective in any fiscal crisis is the need to preserve the quality of the instruction, research, and public service programs of the institution. An erosion of institutional program quality will lead to other kinds of crises in addition to adding more fuel to the fiscal crisis fire.
5. Institutional administrators must develop resource allocation priorities which reflect the values and mission of the institution. The priorities must distinguish between academic and necessary support services, among academic programs, among support services, and among organizations within the institution.

6. In resource allocation policies, regardless of whether there is a fiscal crisis, the costs that are controllable and those that are uncontrollable must be identified. Costs which are determined by elements or factors external to the institution, such as energy costs, must be identified as such and must be properly funded. The fixed and variable nature of many program and organizational cost patterns must also be recognized.
7. The concept of critical mass must be recognized in institutional decision making during times of fiscal crisis. This concept relates the efficiency and effectiveness of institutional programs to a certain minimum level of faculty, staff, and students required to facilitate the operation of an effective program.
8. The future implications of present actions must also be considered when budgetary reductions are made during a fiscal crisis. These implications can be discussed in terms of short-term actions which have long-term cost consequences, such as a decision to limit severely the maintenance of the institution's physical plant, or a decision to cut back on library acquisitions where the potential for recovery at a later date at a higher cost may be significant.
9. Institutional administrators must recognize and cope with the impact of inflation whether in a fiscal crisis or not. The impact of inflation affects all aspects of institutional programs and can serve to accentuate a fiscal crisis if not properly recognized.
10. Even during a fiscal crisis, institutional administrators should look for investment opportunities which will result in later cost savings or cost avoidance. A decision not to fund the investment now may result in excessive future costs.
11. Institutional administrators must be alert to the need for coordinating reductions among competing programs and organizations on campus. Crisis responses which simply pass costs or services to other organizations or programs are generally not productive, and such alternatives must be carefully evaluated and coordinated.
12. Institutional administrators must also be alert to the cost of layoffs in planning their response to a fiscal crisis. Often the subsequent costs of unemployment compensation, sick leave, and vacation payoffs can significantly impact perceived savings.
13. Institutional administrators at all levels must continuously ask themselves what is central to their programs and what is peripheral. A continued review of program elements from this perspective is healthy and of crucial importance during a fiscal crisis. In addition, unit heads should ask themselves what activities and services are mandated by agencies external to the institution or by the institution itself, what activities and services are required for effective operation of the university, what activities and services are desirable but not really required for effective operation, and what services and activities are

useful and supportive of university operations but really not required when times are tough.

14. Institutional administrators must be provided with sufficient flexibility to adapt to the fiscal crisis confronting them. This flexibility includes the ability to reduce workload volume, generate revenue, shift funds among purposes and programs and objects of expenditure, and increase productivity where possible.
15. Institutions must be particularly attentive to the health and safety requirements of the campus. Budget reductions which endanger employees and thus affect morale and productivity should not be considered.
16. Institutional administrators must attempt to increase the productivity of their organization without affecting the quality of the services provided. Too often an assumption is made that any reduction in resources will automatically result in a decline in quality, but there are alternative ways of providing these services, ways which will not only maintain but potentially increase quality.
17. Institutional administrators must be particularly sensitive to the morale of faculty, students, and staff throughout the campus. Institutional, college, or department level policies which create a negative atmosphere are to be avoided; attempts should be made to view the process and the outcome in a positive framework.
18. Institutional administrators must also be attentive to the need to achieve affirmative action goals. Responses to fiscal crises which take a step backwards in this important area are to be avoided.
19. Institutional administrators at all levels must be alert to the potential for reorganization of resources, people, material, space, etc., to achieve institutional results at less cost in a more efficient and effective manner. Reorganization possibilities should be considered at all levels within the institution.
20. Institutional budget policies should ordinarily avoid arbitrary across-the-board approaches. These across-the-board responses, such as employment freezes, travel freezes, equipment freezes, etc., are not equitable or effective. They erode institutional and organizational flexibility and morale and generally set a negative tone.
21. Institutional administrators must also be concerned with translating program decisions to the organizational structure. While the need for this procedure may seem obvious, it is the people who carry out program decisions and the manner in which such decisions are communicated which are important to the final result.

The institutional concerns discussed above have implications at the state level as well, whether with coordinating boards, executive budget offices, or legislative staff. The points which follow delineate a number of those concerns with respect to state-institutional coordination issues.

1. It is important that all parties have a thorough and solid understanding of the nature of the crisis and its causes. Such an understanding is important to the development of appropriate alternative responses and a coordination of those responses at all levels.
2. It is important that the overall policy framework and directions for dealing with the fiscal crisis be delineated and understood by all parties. Here it is particularly important that those who will be required to implement the policies understand them fully.
3. Coordination and consultation among all participants, executive, legislative, coordinating boards, and institutions, are extremely important and should include complete and full communication of alternatives and outcomes.
4. State level decision makers must be absolutely certain of the need to implement a specific course of action during a fiscal crisis before that action is taken. This is important to assure that subsequent actions in response to those policies will not have the effect of dismantling and impacting programs if it is not mandatory.
5. State-level administrators must recognize that the educational process cannot be started and stopped like an assembly line.
6. All participants must recognize that timing is extremely important to the decision-making and implementation process. In higher education, significant amounts of time are required to plan and consult regarding decisions as to subsequent courses of action, the actual planning to accomplish or implement a policy, and the time required to actually implement it. This timing requirement must include student degree time as well as sufficient time to carry out institutional termination procedures.
7. State-level administrators must recognize the need to maintain morale in the face of a fiscal crisis. If differential decisions are made, specific efforts should accompany them to assure that the entire system of higher education does not become demoralized. State-level administrators must show concern for the morale of those people who actually deliver the services, not view them simply as a set of numbers on a piece of paper.
8. Institutions must be provided with sufficient flexibility to adapt to the fiscal crisis. The flexibility can take many forms. First, it can be flexibility to raise revenue through fee increases, through new fees, or through charges to other units on and off campus. Flexibility must be provided to shift dollars among various categories, between capital and operating needs, between programs, and between objects of expenditure. Flexibility must be provided to cut services in terms of specific programs, volumes of activity, and levels of service. Flexibility must also be provided to increase productivity through whatever means are available, such as the purchase of an administrative data processing system, the contracting of certain services to external agencies, etc.

9. Administrators at all levels must develop approaches to the management of fiscal crises which encourage and induce creative, incentive-based, positive responses, not negative control modes. Efforts must be made to instill trust in those who are responsible for providing the services; approaches which detract from trust will not achieve anticipated outcomes.
10. Finally, government must also do its part to respond to the fiscal crisis. It is not enough to ask that higher education institutions review and cut back their operations and increase productivity. It is important for the government to reduce bureaucracy and controls, decrease the number of required reports, and generally eliminate the numerous activities and functions which serve no useful purpose and do not contribute to the delivery of services to people of the state.

CHAPTER 8

Information Needs for Budgetary Analysis

Overview

James Cofer

During the year, a university experiences certain critical periods. These include registration and payment of fees, graduation, budget preparation, financial statement preparation, audit, and on a monthly basis, payroll preparation, among others. With the exclusion of the academic program review process, a state postsecondary agency has an ongoing crucial period known as the budget cycle. It is this aspect of a state agency's functions I will address as well as the most important stage of the budget cycle for public institutions, the appropriation process.

There are a myriad of reasons why the appropriation process is so crucial. The primary reason is that this is the time when the short-term and possibly long-term goals of an institution are determined through the procurement of funds. The second, and probably most important to state agency financial officers, is the premise that our success, whether formally or informally, is measured by the amount of funds the legislature can be convinced to appropriate to our campuses. Therefore, it is of paramount importance to convey to the state leaders in a simple format the complex, dynamic financial statistics of our constituent institutions.

There are a few key items of information that are requested by the Mississippi legislature; and through reading other state appropriation requests, it was noted that several other state legislatures request these items.

1. Faculty Salaries
2. Restricted Funds
3. Appropriation per Student
4. Expenditure by Function
5. Expenditure by Object

Faculty salaries have always been in the limelight. There is a wide difference between the salaries of faculty and other state and nonstate employees. Usually faculty salaries are on the upper end of the spectrum as they are in Mississippi, but this is not the case in all states. Even though faculty salaries are high for Mississippians, they are low for the southeastern region and the nation overall. Therefore, we have been successful in comparing Southern Regional Education Board (SREB) average faculty salaries to Mississippi average faculty salaries.

To illustrate, last year we developed a three-year plan to close the gap between SREB average faculty salaries and the faculty salaries in Mississippi. We were successful in obtaining funds to implement the first year of this plan and have 1981-82 recommendations to continue into the second year. Therefore, if your state is on the low end of the faculty salary scale for your region, make the comparison. If your state is on the high end of the faculty salary spectrum, the comparison with regional and national statistics is still valid. Although it is more complex, you can still request higher faculty salaries on the premise that other states are catching up, and your position of prominence in faculty salaries is deteriorating.

The interest in restricted funds has increased in recent years. Restricted funds should be disclosed. Unlike many of my colleagues and the *NACUBO Administrative Service Guide,* however, I believe restricted funds should not be incorporated into the current funds budget, particularly during the appropriation process. The incorporation of nonrecurring income and expenditures distorts the true financial picture of an institution. In addition, the incorporation of restricted funds confuses legislative decision makers as to the amount of self-generated income. If, however, the exclusion of restricted funds is forbidden, some mechanism should be used to display these funds adequately. The source/use matrix developed by NCHEMS is the best display of how all funds are interrelated.

Most of us now use some measure of appropriations per student. The single measure of support is probably the most widely used item of information and probably the least useful for comparison of institutions:

1. with different missions;
2. of different sizes where economies of scale are evident;
3. where the amount used for appropriations is not exactly the same; and
4. where the student, whether FTE, headcount, or other type, is not calculated exactly the same.

Because of these differences and due to the wide use of this measure, its application should be conditional.

Tradition dictates the use of expenditures by both object and function. In the higher education community, the functional categories of instruction, research, public service, academic support, institution support, student services, scholarships and fellowships, and operation and maintenance are extremely useful tools of analysis.

With analysis of trends in the expenditures among these functions, it is easy to determine any shift in emphasis at an institution. However, to a lay legislator, these functions are not easily understood. The question most asked is, "How much do you spend on administration?" Since some administrative offices are in all of the functional categories, this question cannot be answered without detailed analysis of financial statements.

Expenditure by object is easier to understand for most individuals. The reason seems to be the ability to visualize the salary paid to a professor or the expenditure for the purchase of a library book. Although the object categories differ among states, the most prevalent seem to be salaries, wages and fringe benefits; travel; contractual services; commodities; capital outlay (nonequipment); capital outlay (equipment); and subsidies, loans, and grants (sometimes called transfers). During the appropriation process, the benefit from object of expenditure analysis is the ease in defending any cutback or increase in funding. One can determine how many faculty members will be cut or hired, how many library books are affected, or how instructional supplies will benefit or suffer. The quantification of needs is an important tool in an appropriation request.

Although there are hundreds of items of information prepared for individual legislatures, these five items of information are critical. Regardless of what information we present, however, we should above all be honest. Too often in the past the educational community has tried to portray an austere demeanor in an effort to establish that we are good stewards of state funds. This is a mistake. At our institutions, we have the finest minds in our states; therefore, we should make our presentations of information polished and professional. We are in essence salesmen. Our product is education.

The University of Houston Experience

Frank Brown

My remarks will be from the perspective of a large public university in a state which has a highly structured reporting and appropriation process. These items or processes described as *typical* must be understood to be typical to my experience.

When one speaks of information needs for budgetary analysis, there are several directions the discussion could take. For example three areas which need to be supported by budgetary information are immediately apparent. The first is the area of budget requests, which may be either an appropriation request to an external agency or an allocation request to be used internally. Beginning with the internal side, the request will typically pass through various levels of administration. The departmental request will often resemble a "wish list." At the school or college level, there is still a great deal of wishful thinking taking place but in a more consolidated form and usually within the constructs of guidelines. At the institutional level, the request will conform more to state guidelines, coordinating or governing board formulas, etc. At the governing board level, depending on the detail of guidelines and governing board involvement in the process, the request may be more or less accepted and only reviewed in summary fashion. When the request leaves the institution and goes to the coordinating board, there will be various checks made against the request to ensure that it conforms to published guidelines. To this point, essentially every analytical attempt has been based on quantitative information. From the legislature and on to the governor's office quantitative evaluation is still the rule. If a state has a sacred formula, a formula which is modified by politics to determine its appropriations, or even if the state is allocating in a truly political fashion, the need for good information is essential.

A second area which needs information for budgetary support is that of monitoring budgets internally in the institution during the budgetary period. This process requires several items to be successful. First, it requires some control of income and expenditure information. The control is more in the form of knowledge than physical control. Secondly, it requires rapid analysis of the information as it is received. Thirdly, it requires that someone at some point in the process has some historical knowledge of what has gone before and what could be expected to cause perturbations in the process, especially near the end of the budgetary period. Finally, it must have timely feedback as a component for the use of the budgetary units. This is in addition, of course, to exception reports and other summary information to top management.

A third area that needs information for analysis is accountability. More and more, federal, state, and legislative involvement in specifying how dollars are to be spent and in developing mechanisms to monitor and control is evident in our daily lives. Who has not complained, and probably with good reason, of increasing government intrusion in our lives and in areas of our institutional operation where there is serious question as to the propriety of that government involvement.

This paper will focus on the second of the areas mentioned, that of monitoring performance during the budgetary period. A budget in its truest sense is a plan for a specific period, a plan for controlling the expenditure of funds available or projected to be available. To many people, the budget, by its very nature, has a negative connotation. It implies control, and people do not like to be controlled. Budgets are also used for evaluation, and people dislike being evaluated even more than they dislike being controlled.

To the extent that revenues used in budgets are derived from operations which produce an income, the future is more uncertain. It is important that the budget be developed as close to the period it covers as possible. Once established, the real use for which the budget is designed begins.

On the revenue side, especially with auxiliary operations and service centers, a close watch must be maintained on income. This is usually accomplished by basic procedures in the cash collections and revenue reporting areas, which then lead to more sophisticated analysis. It is important that regular and timely deposits of receipts take place and a central repository (cashier's or bursar's office) be used to capture both the dollars and information. From that point the income information, properly coded by account and revenue code, flows to periodic budgetary status reports. Budgetary analysis is then rather automatic, especially when the report format displays projected-to-date, collected-to-date, and same-period-previous-year information. Further breakdowns by source of income (revenue code) will aid in diagnosing slow collections (or bright spots) and will enable management to take necessary corrective action.

From the expenditure perspective, many of the same kinds of analyses are needed. Correct coding of the expenditures is essential. It is then a matter of entering the expenditure (or encumbrance) transaction into the accounting system and preparing status reports for a given period. Again, the budgetary activity reports must display accurate information in a timely fashion, and the format must be useful for those who review and analyze the information. Usually expenditures for this period will be compared to the same period the previous year. They may also display *variance*, which indicates the difference between planned performance and actual performance. This, of course, is

sometimes useful; but if, for example, an expenditure item for a particular purpose does not lend itself to smooth distribution throughout the period, the variance column will be less useful.

The budget reporting process as it relates to the user community has now been described, but management analyses might differ considerably, primarily because they serve different purposes. While users and mid-management are looking within an individual budget, top management will be more interested in analyses between and among budget units. This is not new. Some comparisons are truly complex, but there is a new twist.

Resource reallocation is becoming a more common term in this time of tightening budgets. This simply means a redistribution of resources within an institution, usually based on enrollment changes and student distribution between colleges or schools within the academic unit. In some universities, there are now processes in various stages of development and at various levels of sophistication taking place.

In 1976, the University of Houston became concerned about its method of allocation of resources within the institution, primarily the use of incremental budgeting. At that time, a concerted effort was undertaken to develop a better planning model to assist in several areas. There were three general goals which dictated the need for the planning model of resource allocation. One, the institution wanted to be able to link its academic priorities to its budgetary decisions. Two, the institution wanted to be able to adjust departmental budget bases to bring them closer to the actual needs of the department (switch from incremental budgeting to budgeting based more on analysis of current conditions). Three, the institution wanted to develop a prioritized planning process for adapting to significant alterations in funding. This was not necessarily a retrenchment move but would allow the institution to adjust to increased funding as well as possible decreases.

The process consisted of several parts. The first activity was to classify the academic departments by expected cost of instructional delivery. The two most important determinants were the level of instruction most often provided by the department (undergraduate, masters, special professional, or doctoral) and the predominant format of instruction (lecture, seminar, etc.).

A second step in the process was to determine the productivity of semester credit hours per full-time-equivalent faculty position. The objective was to develop theoretical faculty staffing levels required, by department. A comparison of actual need (the theoretical figure) to actual budgeted full-time-equivalent faculty was then made. Further analyses focused on tenured faculty in each department and developed a six-year projection of retirement of tenured faculty, by year of retirement. It was then possible to look, in

specific terms, at the reallocation of faculty positions between and among schools and colleges. It is important to note that the theoretical model was tested in an information exchange with about twenty-five other universities which had similar characteristics.

Academic priorities were then intertwined with the model. Consideration was taken of *quality* and *centrality*. Quality has three dimensions: first, the distinction of a department, that is, a department which is recognized for its excellence; secondly, the strength of a department, rating it as to whether it is generally above average and perhaps nationally distinguished in a few aspects; and thirdly, adequacy of a department, that is, a department which satisfies minimum standards but is distinguished in none. Centrality had two facets. Discipline centrality, a discipline central to any academic institution, had to be retained at a certain level. Locational centrality described a discipline which was of particular importance because of the geographic location of the institution or the service responsibilities of the institution for the area.

I hope this brief description of our process will show that an attempt is being made to merge academic priorities with the reality of today's environment where enrollments are slowing or declining and appropriations are not increasing at nearly the rate of a few years ago. This theoretical model, of course, is much more complex than described here, but perhaps this description has provided a general understanding.

The topic of information needs for budgetary analysis is indeed an important one in today's environment. We can no longer afford the waste and sloppy management which we previously covered up in so many cases by increasing appropriations. Today's manager must have good budgetary information available in a timely fashion, and it must be accurate and meaningful for his particular level of responsibility.

CHAPTER 9

Institutional Budgetary Approaches for the 1980s

Incentive Budgeting

David Berg

In a recent issue of *Change Magazine*, Harold H. Enarson, President of Ohio State University, sarcastically and lucidly deplored the tendency toward

proliferation of regulation of colleges and universities by a growing number of regulators stationed at increasing distances from the scene of action (1980, pp. 7-10). He quite correctly points out that this tendency to dictate and document every aspect of institutional life in excruciating detail is not only calculated to reduce us all to mediocre performance but is also painfully wasteful.

We have all observed examples. Policies that once were decided by a third-level manager are now examined by the corporate board. Budget decisions that a dean or chancellor once made are now prescribed in detail by state agencies, legislatures, or budget bureaus. A multiplicity of authorities from relatively remote areas of the executive, legislative, and judicial branches of both state and federal government is telling the managers of higher education not only what the goals are but exactly what must be done to achieve them.

The results are entirely predictable. Policies are often unclear, contradictory, or plainly wrong because they were formulated with little direct experience of the problem or because decision-makers were too far removed to assess the problem correctly. Formal authority, equally remote, becomes legalistic, arbitrary, and increasingly ineffective. Without sufficient authority those who should take responsibility cannot do so. Cooperation and communication become frustrating and chaotic. Responsibility is so dispersed and unclear that, in effect, no one is responsible. All of these factors have an appallingly high opportunity cost, yet it is all done in the name of accountability, the desire to get as much as possible for the educational dollar.

The specifics of budget practice in the nonprofit sector ignore the most elementary facts of human economic and psychological behavior. We want careful stewardship and intelligent use of funds, but we recapture every cent that is not spent at the end of each fiscal year. We want to maximize enrollment and retention by having faculty devote their best efforts to quality instruction, but we tend to base promotion and tenure decisions primarily on publication records. We would like to stimulate sponsored research, however, we make budget and work assignment arrangements that conceal from the faculty any direct benefits they may be deriving from it; in most cases at the federal level, in fact, we force them to try to prove that neither they nor their institution received any economic surplus from grant performance, thus building in a negative short-term incentive. We are concerned with the deferred maintenace of our capital investments, so if an institution succeeds in saving some money for that purpose, we revert it to the state treasury or cut the succeeding budget by the total amount saved. Desiring line managers who will use their resources creatively and effectively, we naturally give them line-itemed budgets that cannot be varied without endless detail and delay. It is desirable that we provide a mix of products and services that best satisfies

our client's demands. Since the effective way of measuring this is differential user charges on a cost-related base, we avoid user charges as much as possible and, when forced to use them, charge much the same for expensive as for inexpensive services.

Surely we should know better. Why do we act as we do? At the risk of oversimplifying, I think it is because of two related misconceptions. One is that nonprofit enterprises cannot use incentive techniques. The other is that efficiency and effectiveness can be enhanced merely by the imposition of additional levels and degrees of control and review.

All enterprises have incentive structures. The question is not whether they exist but if they are the desired incentives and, if not, how desirable incentives can be designed. Except for ownership profits, the potential incentive techniques available to the nonprofit sector are precisely the same as those available to the private sector. The price of not realizing this is not just lack of incentive, it is frequently counterproductive incentives.

As layer upon layer of review and control is imposed, de facto authority becomes more and more remote from performance responsibility. When authority is far removed from responsibility, that authority is usually ineffectual, and no one is responsible. When no one is responsible, no one is likely to be rewarded or punished so desirable incentives are not likely to be operating. The price of not realizing this is an escalating attempt to correct problems by methods that only make them worse.

Fiscal distress also affects efficient sensory and response behavior. Organizations, like organisms, survive by rapid and efficient adaptation to changed environments. This requires efficient perception and quick, appropriate response. Institutions of higher education (and most other public and nonprofit enterprises) have dulled their perceptions and made their decision time so slow that the organization is often sick or injured before an appropriate response occurs. In the more difficult immediate future, still worse may occur. Improved budgetary practices that stress desired incentives and decentralized authority and responsibility have the potential of sharpening our senses and improving the quality and timing of our responses.

One of the disadvantages of multiple and increasingly remote levels of control and review is that they make it more and more difficult to bring about desirable system changes. For that reason, introduction of some incentive techniques will be quite difficult. An important step is for all levels of control to understand the desirability and potential benefits of the move. Legislatures, coordinating agencies, and system administrations can provide the

flexibility to manage efficiently and will do so if they become convinced that good results will follow. In most cases at least some incentive and decentralized management techniques can be used immediately.

Some suggestions for consideration follow.

- Share end-of-year budget balances with the next lower operating level.
- Do not bail out overdrafts unless convinced that they resulted from initial budget errors.
- Incentives need not be monetary or individual. Challenge faculties to operate more efficiently. Let them retain at least part of the resulting free time. They will use it to the institution's long-term advantage as well as their own.
- When sponsored research is a factor, try to return at least some of the proceeds in a tangible way to the units generating it.
- Do not totally disassociate budget levels and enrollment measures.
- Use a headcount registration factor as well as student credit hours in your enrollment measure.
- Relax line-item budget controls so that the manager can make the best use of available resources.
- Do not dictate the line-item details of retrenchments; let the local manager make the best of it.
- Encourage differentiated tuition rates based on differential costs.
- Do not give away what customers will pay for. You manage better and please more customers with an a la carte than a table d'hote.
- If you want to reduce or eliminate inefficient or low demand programs, do not signal that those who take the heat for doing it will have no share in the savings.
- Insofar as possible, avoid detailed, uniform work rules. Specify and monitor the output, not the method of input.
- Give managers close to the action a clear idea of what is to be accomplished and as much authority and flexibility as possible to accomplish it. Then hold them responsible for results and reward or punish accordingly.
- Use prizes and performance bonuses. Base them on objective measurements.
- Occasionally, fire or demote somebody if necessary. Do not assume that people who do so have suspect motives. We badly need equal opportunity to perform and affirmative action to create efficiency.
- If you want to encourage private funding, do not treat it as an offset to public support.

The planner or budgeter who thinks efficiency and effectiveness can be accomplished by multiplying rules and control mechanisms is engaged in self-delusion. People in the nonprofit sector are not self-sacrificing idealists.

People everywhere seek to maximize their personal satisfactions, and faculties, students, and administrators in colleges are no exception. It is their own objectives they will work hardest to further. If budget techniques put those personal objectives in conflict with broader institutional objectives, all the rules, controls, reviews, and accountings one can devise will not prevent them from defeating those institutional objectives. There are more of them than of you, and they are concentrated on each individual situation. They will beat the game, and in the process everyone's objectives will be less satisfied than they might have been.

If, however, personal objectives and institutional objectives can be satisfied jointly by the same actions, there is much less need for bureaucratic impediments intended to enforce compliance. To achieve this requires conscious tradeoffs among individual and institutional goals. The resulting plan may not seem to achieve as many of the institutional goals, but because of the changed incentive structure and the release of resources wasted on useless attempts at regulation and enforcement, the results of the plan will probably be superior to a centralized plan that ignores incentives.

I do not contend that the nonprofit sector has completely ignored incentive techniques. There are many examples of their use in colleges and universities, but we have not communicated enough about them; we have not educated ourselves or those to whom we are accountable about the possibilities they offer; we have not carried out enough experiments, or if we have they have not been publicized.

The best contract enables both parties to feel they benefit by performing; neither party has to devote much effort to enforcing it. When it is over, both parties are likely to have their money's worth. In the worst contract, one party expects to lose. Enforcement approaches the impossible, and both parties are likely to wind up dissatisfied. Most budgetary arrangements in higher education seem to be the second type rather than the first. The private sector has no monopoly on incentive techniques, but they know how to use them, and if they do and we do not, population-based enrollment declines will be the least of our problems.

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Expected Conditions and Potential Responses

Edward Whalen

Among the many institutional budgetary approaches that have been conceived and can be imagined, those which will address the issues confronting institutions of higher education in the coming decade should be selected. To identify the budgetary approaches which will be relevant in the 1980s we first must predict what those issues will be. This paper will focus on three commonly accepted conditions expected to plague higher education in the 1980s:

1. enrollment decline,
2. price inflation, and
3. scarcity and instability of resources.

Of these three issues, the expectation of enrollment decline seems to be the most predictable and amenable to analysis. Given current enrollment patterns, a decline over the next ten years appears inevitable. In Indiana, for example, high school graduates are projected to decline from 78,000 in 1980 to 63,000 by 1986, a decline of about 20 percent. The forecasted change in university enrollment will be relatively less and should occur more gradually. Although high school graduates constitute the major source of undergraduate enrollments at the Bloomington campus of Indiana University, graduate and professional enrollments, particularly the latter, are expected to remain stable. At the regional campuses, less than 50 percent of the students matriculate to Indiana University in the year they graduate; over 25 percent matriculate after a lapse of five years, thus spreading the impact of the falling number of high school graduates over a more lengthy interval. Nevertheless, the trend is downward.

How do we cope with these enrollment declines? What budgetary approaches are useful? In Indiana, as a result of the interaction between the institutions and the Indiana Commission for Higher Education, a concept of marginal cost funding for enrollment change has evolved. Operationally, marginal cost funding for enrollment change has meant that the additional funding provided per student as enrollment increases is not the average cost per student but only a percentage of that amount. For example, on the Southeast campus of Indiana University, from 1979-80 to 1980-81, full-time-equivalent enrollment increased 11 percent. The average cost per student was $2,200; the marginal cost for enrollment change funding was $1,200. Since average (and marginal) fees per student were no less than $850, the appropriate increases no more than $350 per student as enrollment rises.

Of course, average cost can be calculated in a fairly familiar and noncontroversial manner. Marginal cost estimation can be somewhat more difficult. The "true" marginal value is belived to lie somewhere between zero and the average cost although even those limits are not necessarily the lower and upper bounds. Much technical effort could be expended narrowing the range, but this really is unnecessary. In the political process a rough approximation will suffice.

Although imposed on Indiana institutions during the 1970s—a period of rising enrollments—as a rationale to limit appropriation increases, we trust legislative and executive branch enthusiasm for the concept will continue throughout the 1980s—a period of expected enrollment decline. Responsible representatives of the public welfare will recognize that the existing arrangement spares institutions unwarranted fiscal trauma as operations contract in response to declining student demand. Incentives for ruinous competition among institutions to maintain the size of their student bodies are reduced as the adverse fiscal consequences of enrollment decline become bearable.

An external budgetary approach, ergo, can influence our fiscal fate. Are there also internal approaches? Even under the marginal cost concept institutions are not insulated from the fiscal effects of enrollment decline. Fee income falls with enrollment declines, amplified or offset slightly by accompanying changes in state support. Do base-minus situations require different budgetary approaches than base-plus situations?

The answer depends on the time horizon. Our experience suggests that budgetary approaches come to the fore in an intermediate time horizon, an interval of two to five years. In the short run—a year or less—when enrollments are declining, the budgeting environment seems little changed from a situation of enrollment growth. Expenditure commitments are fixed, and responding to perturbations in enrollment from the trend is the major concern. The margin of error hopefully is small, and opportunities for budgetary maneuvering are limited.

In the long term—beyond five years—major changes in expenditures are possible, and the scale of operations can change substantially. Supporting services and physical plant can be modified, and even in a period of enrollment decline quality improvements are attainable. Substandard facilities can be abandoned, operating units can be consolidated or eliminated for greater efficiencies, and parking conditions can improve. In the long term, the issues involve more management than budgeting.

It is in the intermediate term that a situation of enrollment decline calls most for a modification of existing budgetary approaches. Base-minus budgeting requires far more definite and self-conscious prior planning.

Expenditures commitments for personnel are less constrained, and if required, staffing can be reduced substantially over a five-year period. To accomplish such changes in an orderly fashion, however, personnel policies must be guided by projections of future resources for the lead time often is long.

In the case of faculty, the lead time required is established. Our policies, which are not unique, require that faculty with two-year appointments expiring at year end be notified of their reappointment or termination by November 15. First-year appointments must be notified by January 31. For all others, a twelve-month notice is required. For staff other than faculty, the decision dates are less well defined, and turnover rates tend to be higher. Nevertheless, reductions in both faculty and staff require prior planning of at least six months to a year if the transition is to proceed smoothly and in a manner minimizing inconvenience and hardship.

To assist in the process, student fee income is projected five years forward based on enrollment projections and current fee rates. Campuses are notified of increases or decreases in future fee income, particularly decreases. The budget office does not presume to suggest how reductions are to be apportioned among the academic and support units on a campus; but we do insist that those allocations be made, and we review them. Prior to the beginning of the 1982-83 budget preparation cycle, changes in staff required to accomplish the reductions will be identified and incorporated in the allocation for next year.

The direct effects of this procedure are reflected in the budget. Indirect effects are suspected. Such a five-year plan provides guidance to deans and department heads as they consider replacements for terminations, retirements, and reappointments. Rather than alarming, our calculations tend to be reassuring. So far, the adjustments required appear to be well within the capability of the system to absorb without disruption. Until some idea is provided as to the extent of the change, people tend to expect the worst and anticipate massive reductions. Bad news that is not as bad as feared turns out to be good news.

The number of students is expected to go down during the 1980s. Prices are expected to go up. The expectation of rising prices, however, is not as well founded as that of declining students. Our anticipation of price inflation is based almost entirely on an extrapolation of what has happened during the 1970s and what is happening now. Nevertheless a cessation of inflation in the near future seems conceivable only in an economic environment so hostile as to make our present situation as desirable as "the good ol' days."

If the past is a guide, inflation during the 1980s will be substantial. From 1970 to 1980, the consumer price index increased 83 percent. Of course, the consumer price index relates to the typical expenditures of individuals and households, and a somewhat different price measure is necessary to assess the impact of inflation on institutions of higher education.

An example of a response to inflation involving interaction between institutions and the state is the "Economic Indicators Study," sponsored annually since 1974 by the Indiana Commission for Higher Education with the participation of the Indiana public institutions of postsecondary education. Its features include the Indiana Higher Education Price Index, a series of price indices weighted according to the nonpersonnel expenditures of Indiana institutions. The index shows that from 1970 to 1980 the cost of items that universities buy has risen 120 percent—more than double—and has played a role in determining our level of state support.

The increases have not been uniform among items, however. The cost of fuel and utilities has increased 150 percent. As a further example of state and university interaction, the price implications of the energy shortage on those items were recognized in the early 1970s. Each biennium (the funding period in Indiana is two years), rate increases for coal, electricity, fuel oil, gas, water, and sewer now are projected after careful analysis. Funding is recommended by the Indiana Commission for Higher Education based on those rates and the assumption of no change in usage for existing facilities. Recognizing the inevitability of fuel and utility costs and evidently favorably impressed with the analysis, the Indiana Legislature has assigned a high priority to funding this expenditure category of our appropriation request thus eliminating the necessity of transferring resources from academic programs to pay the electric and water bills.

Internally, we have found that inflation poses both an opportunity and a hazard requiring a greater degree of sophistication in our budgetary approaches. The opportunity stems from a money illusion; people tend to feel better off as their nominal allocations rise even though prices are rising too. By even small differences in relative increases in allocations to units, substantial transfers of real resources can be achieved over time without producing great discontent, or at least not as much discontent as would be evidenced in a period of price stability in which reallocations from units appeared as reductions.

The hazard presented by inflation is that some resource shifts occur unintentionally because of differences in rates of price increase among items. Over the past ten years, prices of library books and periodicals have increased about 180 percent, and scientific equipment has increased approximately 150 percent. During the same period, telephone rates and the prices of office

equipment have increased less than 40 percent. Budget allocations among units must recognize those differences in relative rates of price change to avoid unintended shifts in resources among different university operations.

Price inflation often is associated with the third of our issues confronting higher education in the 1980s, resource scarcity and instability. The connection, however, seems a dubious one. Everyone complains about being hurt by inflation; no one admits benefiting; but someone must. The extent to which higher education benefits from or is hurt by price inflation deserves future study.

Scarcity of resources is not peculiar to higher education. It has characterized the human condition since the Garden of Eden (where apples were in short supply). It sets a limit on the scope of our activities and the quality of our performance. Its principle virtue is that it provides a raison d'etre for budget officers.

Resource instability also is a fact of economic life. By definition, it cannot be predicted, but past experience suggests that unexpected fluctuations in income do occur.

What budgetary approaches address these issues? With respect to scarcity, given available resources, allocation techniques are required to distribute inputs in such a manner as to achive optimum output. Zero-base budgeting and internal pricing are two such techniques. In institutions as complex as those providing higher education, neither by itself is likely to be completely adequate. Both are needed and tend to complement one another.

Internal pricing must be more than a budgeting technique. It should be designed to provide a basis for decision making by department chairmen and office heads (local units) that leads to promoting institutional objectives. Such an environment is difficult to achieve. Everyone is accustomed to so many free services, free to individuals but costly to the institution: free space, no depreciation costs on equipment, free audiovisual services, free computing and library access. Chances are that we have more of these free services than is optimum from the standpoint of the institution. If the individuals who avail themselves of these free items recognized their cost in some explicit way, a better balance might be achieved.

One small step in the direction of an improved mix of resources has been taken at our Indianapolis campus. It concerns, at this time, only one item of equipment, the ubiquitous typewriter. Formerly, a department head desiring a typewriter was required to muster a substantial one-time payment for an item that yields services over an extended period. To obtain those funds, bureaucratic negotiation, itself costly, was required. Once acquired, the

machine became a free good, retained even when barely serviceable as evidence of past victories over bureaucratic impediments, and its replacement deferred because of uncertainty as to the outcome of future battles. A survey indicated that the average age of the 1,500 typewriters on the Indianapolis campus was eight years; some museum pieces probably were appreciating in market value but not in their usefulness.

Under the new arrangement, departments do not purchase typewriters; they lease them from the central stores office. The flow of services tends to be matched with its cost. The lease payment is designed to be sufficient to handle required servicing and replacement, with trade-in, at the end of five years. The equipment is standardized at a higher quality than most department heads had the temerity to request and, therefore, is acquired from vendors on favorable terms. If the system works, and it appears to be, its extension to other durable goods items is expected.

As with most public institutions of higher education, financing of degree-credit student instruction comes largely from state funds. For Indiana University, about two-thirds of general educational fund revenues are obtained from state appropriations, about one-fourth from student fees, and the remaining 8 percent from sales and service and other earned income. Although state governments tend to be more sensitive to the consequences of erratic funding patterns than the federal government, regional or national economic conditions impose often undesirable fluctuations in state support.

One way of alleviating the problem of resource instability is through diversity of income sources. Although now relatively small, earned income shows promise of expansion. For some reason, a tendency to provide services at or below costs exists, and we tend to adjust charges slowly in response to changes in the general price level. In the business sector of the economy, prices are not determined by cost; prices are determined by cost and demand. When institutions provide valuable services tangential to their educational mission, they should not be ashamed to charge more than cost. Our services are valuable, and greater reliance on those sources of income perhaps can reduce the effects of greater instability.

Whether the budgetary approaches mentioned will be relevant for the 1980s will depend on whether the issues—enrollment decline, price inflation, and resource scarcity and instability—beset us in the coming decade. I hope that those are the issues. They appear to be manageable, and if they were not present something worse might take their place.

A State Perspective

Freeman Holmer

As a former state director of finance and, through the 1970s, as the fiscal vice-chancellor of a state system of higher education, I watched institutional budgetary approaches for the 1960s and 1970s with very close attention. I suggest that from the perspective of a legislator, an educational coordinator, an executive branch budget officer, or a state system official, institution budget approaches in the 1980s are likely to be viewed with a healthy measure of skepticism and suspicion.

Indeed, skepticism and suspicion characterize the attitudes of both parties to the budgetary dialogue. Institutions are rightfully suspicious of the covert (and sometimes overt) anti-intellectualism expressed by some legislators and the lack of sympathy for issues of tenure, academic freedom, or institutional autonomy. For their part, some institution representatives display a lack of political sensitivity, a limited intellectual curiosity about the budget process, and a notable disdain for intellectual consistency.

Following are a few illustrations of the reasons for state hesitancy to accept institutional suggestions for changes in approach to budgeting for higher education in the 1980s. The first involves formula budgeting and the increasing emphasis on costing and financial analysis. Many state budget officers of the 1960s recall institutional insistence that the rising enrollments should be funded by increasing budgets on the basis of average costs per student. Institutions firmly resisted any effort to apply marginal cost analysis as long as enrollments were rising. Now that enrollments are beginning to show declines, it is remarkable how quickly institutions discover that there are, in fact, fixed and variable (and even semivariable) costs, and the states profess new satisfaction with average costs.

Institutional discovery of cost analysis, however, turns out to be quite selective. The struggle for realistic recognition of the indirect costs accompanying institutional contracts encounters subversion by some research professors who complain to their congressmen of being "ripped off" by institutional business offices, and some institutions complain of the charges for administrative and legislative services provided by state offices. It was institutional alertness that identified the perils of accepting contracts at less than full cost, but institutions have not been successful in securing intra-institutional understanding of and agreement to the proposition that indirect costs are real and significant and that they ought to be budgeted.

Those who have studied the evaluation of formula budgets recall that they originated, at least in part, as a means of depoliticizing the budget process for higher education. Political agreement on cost per student is easier to achieve than consensus on the value of Latin, Greek, or urban studies. Nevertheless, the history of counting students records a series of changes over the past quarter century that deserves to be remembered. It was not very long ago that full-term headcount was the accepted mode of counting. At the insistence of avaricious state budget analysts, it was replaced with the three-term average headcount. The institutions fought back with full-time-equivalents, first for fall term and later for three terms, but institutions have never established a standard by which to measure a credit hour and have left a train of arguments about what constitutes full time. The impression is widespread that the value of a credit hour has been unsystematically debased.

Student counting has become even more arcane as institutions have sought budgets based on FTE by level of student, and state analysts have countered with FTE by level of instruction. The institutions then developed measurements of FTE by degree program or by discipline.

Always, institutional acquiescence in budget formulas (whatever the tools of measurement of student numbers) has been accompanied by an effort to divorce the basis on which resources are acquired from the ways in which they are spent. In a relatively sophisticated formula, one based on costs by discipline for example, 5 percent of the total funds requested may be based on the formula cost for chemistry. Yet, institutions would unhesitatingly insist that they should be free to spend 3 percent or 15 percent on chemistry if that was deemed proper by the institution.

This divorcement of the basis for requesting funds from decisions about how they will be spent is an obvious source of legislative suspicion. Certainly it is unique among all public programs. No other public agency (with the possible exception of the CIA) justifies its budget requests by describing its needs in one way while planning to spend its appropriations in quite a different manner.

The arbitrariness of legislative decisions about funding of higher education on the basis of a formula is as evident to legislators as it is to institutions. When an institution has been funded for one year at a given number of dollars per FTE student, what does the institution do for an encore? Aside from allowances for inflation, institutions can only ask for increases in per student allocation if they are willing to seek some particular change in the expenditure pattern, either for objects of expenditure (books, equipment, maintenance, salaries) or particular programs. In doing so, the internal decisions about the use of appropriated funds become elements of legislative politics.

During the days of enrollment growth in the 1960s, institutions rightfully complained that increased appropriations lagged behind increased enrollment. During these days of the steady state and forecasts of declining enrollment, institutions can be expected to propose deferral of downward adjustments. Such deferrals are essential in coping with tenure requirements of proper notice in terminating surplus faculty members. There is an infinite variety of patterns for deferral, ranging from fixed periods of delay or rolling multiyear averages (assuming FTE-based formulas) to highly detailed, program-centered or object-driven budgets.

Over the past twenty to thirty years, most states have seen the construction of fragile but enduring interinstitutional and intersegmental truces (in some cases, mutual defense treaties). These truces and treaties have never been taken by the states at their face value. Rather, they have been understood simply as a means by which the four-year institutions avoid providing their critics with ammunition for budget reductions.

Over the past thirty years, institutions of higher education have given substantial attention to techniques of budgeting—to costing, measuring the instructional workload, and functional classifications. There has even been some attention to the intrainstitutional struggles for influence over the intrainstitutional budget allocations. However, when one examines the literature of higher education finance, the relative scarcity of attention to the external politics of budget making is clearly apparent. These are isolated exceptions, of course, but there has been no concerted, comprehensive study and analysis of the political structures and processes through which higher education budgets make their way. There have been several compilations of state-by-state descriptions of budget structure and process. However, these are descriptive, not normative (that is, they are not measured against sets of standards). Indeed, there seems to be institutional resistance to the idea that there is a public interest that will be better served by one set of structures or one set of processes than by another.

In considering institutional budgetary approaches for the 1980s, it is my hope that in this decade institutions will do at least three things.

1. Display a great deal more curiosity about the budget processes, particularly in undertaking concerted and comprehensive efforts to understand the political context of higher education budgeting and in seeking to undertake the establishment of explicit concensus about desired budget structures and processes.
2. Recognize that formula budgeting eventually leads to sterile political dead ends unless the formulas for the acquisition of institutional funds are the same formulas for the internal allocation of funds.

3. Present the case for institutional budgets in terms that are as relevant during periods of enrollment decline as they would be during periods of enrollment increase.

In short, I hope for intellectual curiosity, political insight, and intellectual honesty.

The present level of mutual skepticism between the states and the institutions fails to serve well the needs of either. It is my impression that the states have exaggerated the deficiencies of institutional practices, but it is the institutions whose budgetary policies and practices are most in need of improvement. In the period of budgetary trials that lie ahead, it is the institutional budgetary approaches of the 1980s that will be decisive.

An Institutional Perspective: Stanford

Peter Millington

This paper will discuss budgeting strategy and financial viability of higher education in the coming decade from the perspective of an internal auditor. Private industry recognized some years ago that internal auditors should not be kept as policemen in payroll and accounts payable; they are a valuable management information resource. Other aspects of Stanford's approach to the budgeting process include using strategic goals, long-range financial forecasts, the operating budget cycle, and also some experiences with zero-base budgeting.

For several years Stanford has based its planning upon financial considerations. Two questions have been asked simultaneously: what do we want to do, and how will it be paid for? Our long-range and short-term planning have involved financial performance indices rather than emphasizing programmatic planning. The public institutions seem to have had the opposite experience. Now each of us is realizing that a combined planning approach is required.

Recently we at Stanford have become more aware of the need for a strategic goal or an objective formulation. For example, what will be the nature of the institution in five years, ten years, or twenty-five years? We have had the luxury of being able to eliminate a curriculum, as was done with speech, nursing, and architecture, whereas a public institution has a political constituency to which it must be responsive. We also try to decide where we can excel, and in budgeting we find increasing financial strength by

reinforcing the winners and making the support for marginal or poor performers more tentative.

In the early seventies, Stanford began to see deficits or gaps between income and expense in its long-range financial forecasting. The Provost set out to reestablish equilibrium, and his program proved to be very successful. As reported to the American Council on Education in 1979, Stanford was able to reduce its operating budget by 15 percent over an eight-year period using four funding criteria.

1. Is the program academically important?
2. Is there now and will there be continued student interest?
3. Can we as an institution be outstanding in this program?
4. Can this program be securely funded?

Stanford's long-range planning and forecasting and its budgeting process are really educational efforts involving the trustees, faculty, students, and the staff. Through a very involved, open, and extensive process, we try to bring as much of the community as possible into the process so that there will be general agreement upon the assumptions used in forecasting and the objectives of the budget. If one neglects this effort, the result will be a legislature or governing board dictating line-item performance because it distrusts the administration's ability or motives.

In its eighth year of publication at Stanford, the report "Operating Budget Guidelines" is distributed to all department chairpersons, deans, directors, budget staffs, and trustees. It explains in great detail the budget, the budget process and the institutional context, the long-range forecast, and the current year's operating budget recommendations. The operating budget recommendations are developed by the staff based upon input from various departments, faculty, and consultants. We then fine tune as much as possible the assumption of the income and expenditure portions of the long-range financial forecast.

As Anthony and Herzlinger point out in their 1980 edition of *Management Control in Nonprofit Organizations,*

> *. . . the basic approach to budgeting is first to estimate the available resources and second to plan spending to match the available resources, neither more nor less. This provides a bulwark against the pernicious arguement: We can't afford* ***not*** *to do this* (pp. 328-329).

The advantage of long-range financial forecasting models is that they allow one to cast several possible scenarios while permitting the development of

consensus on budgetary assumptions (income and expense) being used in the model. The EDUCOM model used at Stanford is quite inexpensive and can be adapted very easily to a particular set of assumptions and needs. Even if a legislature takes away part of your decision making or makes long-range planning attempts futile in some areas, in other areas, subordinate functions and departments for instance, a forecast model can be used quite effectively.

Anthony and Herzlinger make another excellent point regarding forecasting.

> *If the first pass produces a deficit, the first reaction is to anticipate additional sources of revenue. This is risky. It is safer to reduce costs because presumably all feasible sources of revenue were identified in the first place* (1980, p. 329).

One should reduce costs to coincide with revenues.

Another empiricism is to marry long-term programmatic or institutional goals to hard money (income from tuition, fees, and investments). Use soft money (gifts, grants, and contract funds) for enhancements, and time its use to reasonable expectations of program life. In our current operating budget, we have approximately 65 percent hard money and 35 percent soft money. We do not expect much change in this proportion over the next five years.

After we achieve general consensus on the long-range financial forecast, including trustee approval, we begin the budget process which translates year one of the forecasts into decisions and tradeoffs for allocating resources in the next fiscal year.

Turning to the area of support services, I will relate some impressions and experiences with zero-base budgeting (ZBB). In our third year of using ZBB in the Division of Business and Finance, we are still learning about the process. One of the pitfalls of managing support services is that often the attitude of academic freedom is seen as also being appropriate for conducting the business side of operations. What needs to be done is to establish a meaningful system of accountability within the management structure. The ZBB process can aid in this effort because it makes one really look at what one is doing and why. It may not be necessary to budget from base zero each year or even feasible in staff areas which are personnel intensive as opposed to service operations. Increments within decision units, even though based upon function and though describing FTE per increment, very quickly become individuals; and we find salary expense cannot be adjusted up and down each year in most cases. State employment restrictions are one drawback. Over a longer period, however, perhaps three to five years, personnel-intensive functions can be addressed logically using ZBB.

With or without ZBB, the process I recommend starts with a task analysis by individual, by department, and by institution. In the process, look for duplication and redundancies, then examine and develop individual job descriptions. Translate job description into departmental and organizational mission statements. Set up a system of perfo. mance appraisals and program evaluations. Internal audit can be used for some of this, but regardless of whom you use, all parties must view the review process as necessary and fair. These are general rules to follow.

1. Determine at the outset what are the program's goals or the job's objectives.
2. Determine at the outset what are valid measures of performance or criteria for evaluating success or accomplishment of goals.
3. Develop an information system which will allow capture of measurement or evaluative data.
4. Determine accountability for performance.
5. Make appraisals and evaluations, and take action on the results.

In summary, our forecasting and budgeting processes are aimed at obtaining consensus on the validity of forecasting assumptions and on the fairness and appropriateness of the budgetary result. What is needed is better managerial information systems, such as management accounting reports and other systems, to allow the decision maker to act based upon current knowledge in those areas where expenditures can be controlled.

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CHAPTER 10

Capital Budgeting

Overview

Richard Allen

Capital budgeting is a critical issue in higher education today, an issue with which many administrators and scholars in the higher education field are very concerned. Lately, this concern has manifested itself as a realization that deferred maintenance and its costs are rapidly increasing and are a threat to higher education's financial stability. However, deferred maintenance is only a symptom of a larger problem although it should be noted that symptoms can on occasion be fatal. The real problem is that capital budgeting, especially budgeting for the maintenance of capital assets, is poorly understood. Most work in the area has concentrated on facilities planning, alternate financing schemes for new construction, and methodologies for calculating the magnitude of deferred maintenance. Very little work has been done on defining financing methodologies for capital maintenance. The work pioneered by Harlan Bareither and followed up by others is a notable exception.

Given this general lack of effort in this field, I suggest a taxonomy of types of capital expenditures and sources of funds that may illuminate the situation. Capital expenditures can be said to be of six types.

1. Acquisition of capital assets - the original purchase or construction of physical assets including buildings, grounds, equipment, and library collections.
2. Physical maintenance - insuring that assets are maintained in such a way as to prevent physical deterioration. Examples are the maintenance of roofs, foundations, mechanical building systems, and equipment overhaul.
3. Technological maintenace - insuring that physical assets are up to date. Examples are replacing obsolescent equipment with modern equivalents and dealing with the proliferation of journals within academic fields.
4. Economic maintenance - investing in physical assets designed to reduce or control operating expenses. The prime example is energy-related projects.
5. Regulatory maintenance - insuring that the physical assets meet the requirements of externally imposed requirements. Examples are handicapped access rules, OSHA regulations, and local building codes.

6. Program maintenance - insuring that the mix of physical assets held by an institution is capable of responding to changed program mixes. Examples are remodeling and equipment purchases to accommodate changed program emphases.

These types of capital expenditures can be paid for through a variety of financing mechanisms. Four major mechanisms are described below.

1. Project grants - capital expenditures funded on a *project-by-project* basis by an entity external to the institution, usually a legislature or donor. The priorities for individual expenditures are external to the institution although institutional requests may play a role.
2. Block grants - capital expenditures funded within a *category of projects.* The priority for the category is determined by an entity external to the institution, but the institution has flexibility about individual project decisions.

3. Operating allocations - capital expenditures funded on an *as needed basis* from institutional revenues. Project priorities are determined by the institutions and funds allocated for the projects programmed for any one fiscal period.
4. Amortization funds - capital expenditures funded on a *systematic basis* from institutional revenues. Revenues are allocated annually to an amortization fund according to a formula. Expenditures are made from this fund as money is available and according to institutional priorities.

The above taxonomy can be useful in considering the reform of capital budgeting. Three innovations are needed for this to occur.

1. We need to identify the problems of the maintenance of physical assets and to measure their extent.
2. We need to develop a consensus on who (states, institutions, donors) is responsible for what.
3. We need to develop structures to implement any concensus which may develop.

A Plan for Improved Space Utilization

William Fuller

We have fought for thirty years to house adequately the programs and staff required to stem the tide of rising enrollments. Now that the tide is receding, how do we maintain what we have?

Enrollment has peaked, and part-time adults will not totally replace full-time high school graduates. Needs of the "new" student may be different. Additional space will not be required since program changes can be accommodated in existing buildings. Existing facilities are wearing out, however. Building maintenance has not kept up with program maintenance, and repair has replaced maintenance. Planning has emphasized new construction not the maintenance of existing facilities so operational and capital budgeting do not interrelate appropriately.

The following steps are outlines to determine needs.

1. Know what exists. Update inventory of facilities by building, room type, assignment (allocation), and function (program classification).
2. Evaluate the condition of existing facilities. Assign a team of architects, engineers, and space managers to use the Building Quality Scorecard (Exhibit 1) in evaluating existing buildings as to their condition for the next decade.
3. Determine estimated replacement and maintenance costs. Use a common method of establishing replacement costs and future maintenance costs through use of a scorecard.
4. Evaluate the current utilization of space and develop comparisons within the system, the state, or nationally using Bareither-Fuller assignable square feet per FTE technique.

Once basic needs are known, a plan is required to properly request and expend funds. The following steps may be appropriate.

1. Develop a space allocation plan. Such a plan must be related to enrollment projections, planned program alterations, deferred maintenance, and space renovation needs.
2. Consider mothballing. If it is not feasible to remove or demolish a building, terminate use and mothball it for future use. Why continue to use a building and waste housekeeping, repair, maintenance, and energy funds?
3. Prioritize renovation projects. Use the Kaiser formula (Kaiser, 1979, pp. 16-18) or develop your own to meet the needs of your institution, system, or state.

4. Define plans in layman's terms in your request. Avoid wish lists which allow others to estalish priorities. Defend needs, explain sequencing, and sell a long-range plan for meeting needs in a stepwise manner. Use the Bariether concept of SR^3 (Space Realignment, Renewal, and Replacement), or develop your own system, but have a system, not a random list of needs.
5. Relate capital and operating budget requests. Show the relationships involved in housekeeping, preventive maintenance, maintenance (repair) and deferred maintenance. Explain the difference between renovation and rehabilitation of a building and remodeling or alteration to meet program requirements.
6. Expend funds as appropriated and maintain priorities in the next budget sequence. Be consistent in application for and expenditures of capital funds; make believers of budget review personnel and legislators.

It requires more planning to make excellent use of existing space than to plan for new facilities to meet new needs. Facility planning, space management planning, and maintenance planning are not dead but are more alive than ever.

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EXHIBIT 1

Building Quality Scorecard

Purpose

The primary purpose of a Building Quality Scorecard is to provide a reasonable judgment as to the overall condition of a building. Ranges of scores are then used to group buildings into several classifications such as satisfactory condition; in need of rehabilitation, remodeling, or alteration; or should be razed or terminated. Only the building components are evaluated; the contents, furnishings, or the function of the building are not evaluated as part of the score.

A secondary purpose of the scorecard is to provide a reasonable estimate of the cost of putting a building in poor condition back into satisfactory

condition through remodeling or by otherwise replacing faulty or worn-out equipment of building materials. Such cost estimates are valid for estimating the probable capital outlay required by an institution, an institutional sector, region, or state but should not be considered valid for establishing a budget for the refurbishing of an individual building. That cost can only be determined after a detailed study has been made by architects and/or engineers based upon a program statement prepared by the institution.

This scorecard will be used in Nebraska to provide a judgment concerning each building on a college or university campus. A team consisting of an architect/engineer and a commission representative will visit each building on each campus and evaluate the buildings using the scorecard. This will occur after each institution has made an independent judgment as to the condition of the building(s) on a Building Summary Form which is part of the inventory of facilities. The local campus official responsible for facilities will provide assistance and knowledge concerning building problems not readily obtainable by inspection. By using the same scorecard and the same team of inspectors, the evaluations should be comparable on a campus and between campuses.

Procedure

Each item on the scorecard has a range of possible points. The range also represents the approximate proportion of the total building replacement cost (for example, the roof covering is approximately 1-2 percent of the total replacement cost of a building and has a score range of 0-2). The actual score selected for each item will be based upon the judgment of the scorer in terms of:

- the type or kind of materials used (it is less costly to replace a built-up roof than a tile roof),
- the present condition of the materials or equipment,
- the age of the materials or equipment,
- the practicality of replacing the original material or equipment with the same type or kind of item,
- the feasibility of replacing the original material or element.

The total score of the rating of a building will place it in several categories as illustrated below.

Point Score	Condition Classification
90-100	Satisfactory
75- 89	Remodeling - A
50- 74	Remodeling - B
30- 50	Remodeling - C
less than 30	Demolition

No score, however, is completely definitive in itself. That is, a building which received a total score of 75 is not substantially different from a building which received a total score of 74. But for purposes of grouping and classifying, it can be assumed that buildings with scores that range between 75-89 points are substantially different from the group of buildings that range between 50-74 points. Once again, a scorecard has value in making broad judgments and classifications but not in establishing a firm cost estimate for construction purposes.

Primary Structure

The primary structure consists of the foundation, superstructure, and exterior skin. In a contemporary building the foundation may be a concrete slab, the superstructure may be of steel framing units, and the exterior skin will be an aluminum alloy. A building constructed fifty years ago may have concrete footings based on caissons, exterior walls of stone or brick, and wood framing. In this case, the exterior skin and the superstructure are one and the same until the joists and beams frame to the exterior walls. The exterior skin should also include cavity wall construction and the interior face of the structural wall but not the facing material such as plaster, wallboard, etc. Thus, there may not be clear and definite breaking points between subcomponents. Judgment will have to be used to determine the overlapping of components.

In general, the evaluation of the foundation determines whether or not the building has settled or shifted, whether subsoil problems are evident, or if structural cracks exist. The superstructure is inspected for signs of movement such as surface cracks, loose joints, shrinkage, deflections, etc. The length of the support system and floor loading capability are also to be considered. The exterior skin is examined for penetration by water due to flashing, tuck-pointing, and other surface conditions which may admit water.

Secondary Structure

The secondary structure consists of the roof covering (not framing), floor covering, space partitioning, and ceilings. The major emphasis is on the condition of the materials used to form the secondary structure not the surface or appearance conditions.

The roof covering should be inspected on the exterior and interior for signs of water penetration, particularly at peaks, valley, eaves, and around downspouts and gutters. The floor covering is inspected for wear and evidence of proper maintenance. Space partitions will vary widely in terms of the type of construction and condition even within one building. The basic determination is the functional reuse of the partitions and condition of the original materials as presently located or relocated. For example, a load

bearing wall and a moveable partition will require different evaluations because of the inherent flexibility and use of materials. Painting for appearance sake should not be considered, but painting because of peeling, stains, or wear should be included in the evaluation as the causes for this may be a building condition problem. Ceilings are scored in much the same manner as walls and other space partitioning. That is, a drop ceiling has many of the same problems in evaluations as a moveable partition. Will the ceiling continue to exist as it is or will it require modification to be in good condition?

Service Systems

The greatest concern in inspecting and evaluating service systems is age, and the second concern is maintenance. An excellent foundation may not deteriorate for hundreds of years, but the life span of most service systems without major change or overhaul is twenty-five years. On the other hand, improper maintenance of either the foundation or service systems may cause their deterioration in a very short period of time.

Heating, ventilation, and air conditioning systems have been changed the most in recent years and are the most costly of any of the systems to replace. The size (or overloading) of the system should be judged along with an evaluation of the basic mechanical system, the controls, ductwork, and distribution through piping or condensate returns. Judgments will take into consideration the difference between providing the basic system in the building or from a central heating and/or cooling plant. The score will be on that building alone not a replacement of a central system. The evaluation of the plumbing system will be limited to the distribution system, returns, and basic fixtures. Judgments will not be made on laboratory furnishings. In a chemistry laboratory, for example, the judgment is on the condition of the supply and waste returns not the laboratory sink or runs in a laboratory table. The electrical system evaluation will include the distribution system, fixtures, and the ability to handle increased electrical loads in the future. The judgment on the building electrical system does not take into consideration a central system or increased transformer sizes located away from the building site. If a building has an elevator, an evaluation will be made on its current condition. If an elevator does not exist in a multistory building, one point will be deducted.

Fixed Equipment

This is a catch-all element to deal, in older buildings, with built-in equipment, which will require removal, replacement, repair, or upgrading as a part of a renovation, remodeling, or alteration project. If a building does not include fixed equipment, the full score of five points will be awarded. Fixed equipment is any equipment built-in or fixed to the primary or secondary structure such as fume hoods, laboratory tables, work benches, library shelves, etc.

BUILDING QUALITY SCORECARD

A.	Primary Structure		
	1. Foundation	(0-10)	_____
	2. Superstructure	(0-20)	_____
	3. Exterior Skin	(0-10)	_____
	Subtotal	(0-40)	_____
B.	Secondary Structure		
	1. Floor Covering	(0- 7)	_____
	2. Space Partitioning	(0-10)	_____
	3. Ceilings	(0- 2)	_____
	4. Roof Covering	(0- 2)	_____
	Subtotal	(0-21)	_____
C.	Service Systems		
	1. Heating, Ventilation, Air	(0-19)	_____
	2. Plumbing	(0- 5)	_____
	3. Electrical	(0- 9)	_____
	4. Elevator	(0- 1)	_____
	Subtotal	(0-34)	_____
D.	Fixed Equipment	(0- 5)	_____
	Total	(0-100)	_____

Notes of Special Conditions:

Building Name _____ Building Number _____

Institution/Campus _____ Date Data Entered _____

Person Scoring _____

The Capital Margin

Hans Jenny

This report is based on the findings and recommendations of *Hang-Gliding, or Looking for an Updraft, A Study of College and University Finance in the 1980s,* by Hans H. Jenny with Geoffrey C. Hughes and Richard D. Devine (1981).

The world expects a business to live within its means. A protracted string of deficits is perceived to reflect bad management. Corporations are judged not merely on how much profit they realize each year but also on the quality of these profits and on the quality of their balance sheets. Except for

considerations of appropriate leverage and customary behavior in a given industry, the highest ratings for financial health go to companies with low or no debt, above average and consistent growth of earnings, and the capability of financing their new capital needs from retained earnings. Sound financial analysis of a business requires an integrated look at operating and capital conditions and needs.

The same should be true in college and university financial analysis. Attention should be focused on this requirement, and the need for a comprehensive point of view should be realized. Nevertheless, college and university financial analysis continues to make a sharp distinction between an institution's current operations and its capital requirements.

When most college and university presidents and most analysts of collegiate finance talk of balanced budgets, a somewhat inaccurate expression at best, they have in mind only one segment of the overall financial condition. Their focus tends to be chiefly, if not exclusively, on whatever changes are taking place in the current funds balances.

In the proper linkage between current operations and capital requirements, the following factors must be considered.

1. Interest charges and debt amortization.
2. Allowances for capital consumption or charges for renewal and replacement.
3. New capital investments other than new plant.
4. Investments in plant for major retrofitting or complete plant renovations.
5. Government-mandated plant investments, for instance with respect to the handicapped and to environmental requirements.
6. New plant projects.

The conventional emphasis on the balanced budget ignores most of these capital dimensions.

Worse, it is possible to report a so-called balanced budget by hiding deficits elsewhere in the structure of the collegiate balance sheet. Our study deals with this phenomenon and calls attention to at least one fundamental shortcoming of collegiate financial reporting.

Colleges and universities overall tend to make inadequate provisions for renewal and replacement of capital. In fact, it can be shown easily that they balance their budgets at the expense of capital renewal and replacement.

Some of the literature concerning collegiate finance in the past suggested that it might be appropriate to assume a capital consumption rate of 2 percent per year for college and university plant investments. According to this conventional wisdom, the useful life of buildings and equipment would be fifty years. More recent literature suggests that such a standard is flimsy at best, and recent renewal and replacement models are taking into account the rising cost of construction and equipment, the age of specific buildings, and the varying mix within a building complex of equipment wearing out at varying rates of speed.

To avoid overstating our case in this study, we settled for simple guidelines: renewal and replacement should occur at least at a 1.5 or a 3 percent rate of existing investments in plant and equipment at their historical balance sheet values. Those critics who believe that replacement values should be used might agree that not all plant and equipment will necessarily be replaced, and the college and university administrators who fear the insurgence of red ink can take comfort in the knowledge that our percentages impute unrealistically long life spans to capital which has been wearing out or becoming dysfunctional far more rapidly than either anticipated or reflected in collegiate plans.

The major findings of the study are really quite simple.

1. The vast majority of colleges and universities have no sound reasons for reporting that their budgets are in balance. Although our sample of institutions may not be statistically representative of all of private higher education, the evidence clearly supports the hypothesis that private higher education generally is not reporting fully on its capital consumption and thus is overstating its financial health.
2. When we look at our samples specifically, we note that the incidence of deficits increases from about 30 percent of the institutions to over 80 percent when our modest 1.5 and 3 percent proxies for renewal and replacement are introduced.
3. The data prove that deferred maintenance is indeed a major financial problem. We suggest, by introducing the novel concept of the deferred maintenance ratio, that the extent of deferred maintenance can be measured. This measure is recommended as a potential indicator of collegiate financial health.

Renewal and replacement are not the only elements in the capital margin defined earlier. It is well-known in collegiate life that this margin is on the whole one of the neglected areas in what officials term their annual budgets.

Our study introduces the concept of an annual capital charge which embodies realistic budgets for renewal, replacement, and new capital

acquisitions and investments in plant improvements. The capital charge concept includes the following three components.

1. A capital renewal and replacement (CRR) charge covering renovation of existing plant and the replacement of equipment.
2. A new equipment and library and laboratory acquisitions budget.
3. A debt repayment schedule that includes the reduction of internal debt.

Each component is calculated separately and based on clearly articulated institutional finance policy. The study is illustrative in this context. We were unable to obtain the necessary data from institutions but have substantial evidence indicating that a number of colleges and universities, usually the ones with reputations for sound management and finances, are in fact implementing financial policies embodying directly or indirectly such a capital charge concept.

In college and university management it is often assumed that quality considerations focus primarily on students, staff, and research output. The nation's research universities are acutely aware of another dimension: technology, especially as it affects the quality of research.

Actually, the quality of technology affects all of higher education. It runs from one extreme encountered in the research laboratory to another experienced when student entertainment employs the latest laser and sound techniques at a rock concert. Somewhere between these extremes we find the technology of instruction and learning and the quantitative aspects of administrative planning and management.

The common element is nonhuman capital, and the preservation or development of institutional quality requires that there exists an adequate supply through the years of this type of capital. Neglecting this capital dimension, therefore, is tantamount to neglecting the very quality of which colleges and universities are so proud and so consistent in advertising. Within the higher education community a significant technology gap has been developing, yet its nature and scope are still too little understood.

Our findings suggest that deficits are rampant in higher education; however, few of them are being reported annually. The apparent favorable picture of financial health is produced by neglecting the capital margin.

Our minimal recommendation is that the National Association of College and University Business Officers (NACUBO) and others join in developing a consensus on a mandatory CRR charge, focusing on the minimum which should be included in college and university financial audits. Since there already exists a consensus on how to handle mandatory transfers for renewal

and replacement, it seems feasible to extend the existing consensus to a somewhat broader renewal and replacement charge concept.

Secondly, institutions need not wait for such a concept to be developed within the industry. Governing board have it within their power to establish immediately, appropriate institutional policies in this regard. Either the CRR charge or the capital charge concepts developed in our study can be helpful. Essential is the following. Institutions should stop deluding themselves and others about their financial condition; colleges and universities with zero allowances for renewal and replacement simply are not in fact balancing their budgets. They are for all practical purposes keeping the books for popular consumption.

Third, it is essential that funders and accrediting agencies develop more realistic standards for evaluating the financial health of colleges and universities. At present, most such analysis is at best banal and at worst dangerous. Specifically, these funders and agencies must recognize the importance of the capital elements discussed in this study; and they must develop rationales for funding them, as well as including them in their analysis of institutional financial health.

Fourth, but not least, legislatures and government agencies at all levels must begin to take account of the capital needs represented by the capital elements mentioned above. Since the quality of the educational output will be affected by funding levels, it is imperative that studies be undertaken which can define both the nature and scope of the problem. Subsequently mechanisms must be provided to assist all concerned in financing reasonable levels of need in a financially sound manner.

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Reflections From the Statehouse

David Monical

It appears to many in state government that over the past twenty years higher education has enjoyed a privileged relationship with governors and state legislatures. This has been, in part, attributable to general public attitudes, rapidly increasing enrollments and the corresonding demand for higher education services, and the concern and influential positions of the alumnae of institutions of postsecondary education. Contrary to what many may think, colleges and universities, in the budgeting process, have not been expected to justify their requests with the same level of specificity and detail as have other state agencies.

In general, institutions of higher education basically have been budgeted under a system which provided for the maintenance of an existing level of funding and incremental adjustments based upon changes in volume (enrollment) and new programs. Insofar as formulas were used, these tended to be very general and, for the most part, related the resources to be allocated to higher education institutions to the volume of activity in which they were engaged. The institutions have maintained that they should have internal flexibility as to how these resources are allocated because they are in a better position than those in a state budget office or state legislature to know specifically how the resources should be managed. As a result, higher education has never chosen, nor really been asked, to be particularly accountable for how it internally allocates the funds provided by state legislatures. In general, state legislatures have tended to respect the request of the institutions for management autonomy.

It appears then, when we begin to consider the issues being raised in discussions pertaining to capital budgeting, deferred maintenance, and equipment, that we are beginning to deal with questions related to how institutions have chosen to internally allocate funds which have been provided to them according to some general set of procedures. The problem seems to be that institutions have not identified, developed, or been provided with a mechanism for truly quantifying their needs nor have the legislatures developed mechanisms for evaluating and assessing such quantified requests.

It is generally agreed that the enrollment-related, highly aggregated formulas of the late 1960s and early 1970s are no longer acceptable to decision makers who provide funds for postsecondary education (and they probably never were). However, because of changes in taxpayer attitudes and fiscal crises already occurring in some states and anticipated in others, there are increasing pressures on governors and state legislatures to request more

detailed accountability from higher education institutions. Some decry this increased demand for specificity as an intrusion on the traditional governance patterns of institutions.

From a legislative perspective, however, I would offer the following observations. Legislatures wish to support higher education, but in the face of ever-increasing and competing demands for diminishing public resources, they are in need of more rational and reasonable justifications for higher education budgets than they have been in the past. To date, institutions have been less than enthusiastic in responding to this request. The problem is that the institutions do not know how to present such justifications, and when confronted with them, legislatures may not have the appropriate techniques to evaluate them. This, however, does not mean that such justification will not increasingly be expected by legislatures and governors.

It is against this background, then, that issues in the capital budgeting process in higher education will be discussed. I will deal with four general problem areas and discuss each area briefly. Alternative suggestions will be presented for consideration.

The first problem area relates to the funding of new construction and the provision of sufficient funds for its maintenance and operation upon completion. To a great extent the budget process for new construction has been kept both conceptually and practically distinct from the operating budget. In some states funds for new construction are generated by sources other than those which generate support for operations. For example, in Kansas there is a statewide one mill levy on all tangible taxable property. This generates approximately $10 million per year which is credited to an educational building fund. Money from this fund can be expended only for capital improvements at state colleges and universities. Thus, up to the limits of available educational building funds, there is no competition between resources for operations and capital improvements. In addition, capital improvements have also been funded from the state general fund and portions of the state's share of federal revenue sharing funds. If federal revenue sharing funds diminish, it is likely that funding for capital improvements will increasingly be requested from the general fund where such requests must be assessed in the context of total state needs and resources.

Once the new facilities have been constructed, they begin to place a burden on the institutional operating budget which is funded primarily from the state general fund (revenues raised primarily from income and sales taxes). In Kansas, requests for new construction or major repairs and modifications are accompanied by an estimate of the impact of such construction on the operating budget. There are estimates of the costs for additional utilities, other operating expenses, and personnel. The reliability of these estimates is

sometimes questionable and seldom considered relevant during discussions of new construction.

Over the past six years, Kansas generally has followed a formula recommended by the State Board of Regents which provides for requested additional operating costs of utilities, other operating expenses, and personnel on the basis of the gross square footage of the new facility. These requests have traditionally been treated as separate request items in the budget process and accorded a high level of funding priority by the Legislature. To my knowledge no building going on-line in the Regents' system in Kansas has failed to secure such legislative support for its ongoing operations (although minor adjustments have sometimes been made). In addition, two years ago Kansas line-itemed its utilities appropriations for each of its public universities. This was in order to ensure that the institutions would not be forced to take ever-increasing utilities costs from their general maintenance and operations budget at the expense of the educational program. In providing such line-item appropriations for utilities, however, the legislature has become increasingly concerned about the need to initiate further energy conservation measures and has strongly encouraged state colleges and universities to engage in such efforts. The state has also been willing to provide some funding for the installation of energy conservation capital improvements.

A second general problem experienced nationwide involves the lack of a clear distinction between projects and funding sources for ongoing maintenance, major repairs, and capital improvements. There is some maintenance which is done regularly on all campuses and is performed legitimately out of the institution's operating funds. In addition, there is some major maintenance or repair work for which sufficient resources do not exist in the operating budget. This could include such items as roof replacements and major remodeling. These projects, depending upon the state, are funded out of capital improvement funds where they are weighed against new capital improvement requests or are funded as part of the operating budget where they are weighed against such items as faculty salary increases. Yet there is little disagreement that they represent legitimate ongoing capital costs of the institution. The budget issue is a question of how to fund them.

In Kansas one approach which has been adopted is to provide funding to the State Board of Regents for the major repairs and special maintenance account. This account, which over the past several years has received approximately $1 million per year in state appropriations, is to be allocated by the Board to the respective campuses for repairs and maintenance projects which are too large to be absorbed in the operating budgets of the institutions but which are not deemed of sufficient magnitude to be requested as capital improvements. Although this approach has had some success, the Legislature

has become increasingly concerned that the funds are perhaps allocated to the campuses simply based on proportionate size rather than with a clear identification of the priorities of the various repairs and projects on each of the campuses. Concerns over this type of allocation procedure have led the Legislature to question the wisdom of continuing to provide funds when allocation is proportional rather than need-related. There is no question that financial needs for such projects far exceed the resources made available to date, but to allocate funds according to some criteria of *fair share* rather than *greatest need* is being challenged.

In a higher education system with over 560 buildings, 19 million gross square feet, and an estimated replacement value of over $1 billion, the Legislature recognizes that the funds provided are scarcely adequate. Yet, a systematic major maintenance and repair program has not yet been developed by the individual institution. There appears to be no conceptual or analytical reason why such schedules cannot be developed by the individual institutions, but the political environment of interinstitutional relations and competition appears to be a major stumbling block. It is this type of policy behavior on the part of public governing boards and institutions which reinforces the increasing legislative demands for greater specificity and justification of funding requests rather than simply "leaving it to the professionals" to make responsible decisions.

In an attempt to respond to problems in assessing needs and allocating resources, the Kansas Legislature created by statute in 1978 the Joint Committee on State Building Construction. The duties of the Committee are to review institutional capital improvement plans and budget estimates, make recommendations on the plans and estimates to the Standing Ways and Means Committees of the Legislature, and study the progress and results of all capital improvement projects. What is emerging in the operation of this committee is a more systematic approach to the evaluation of capital improvement requests on the part of all state agencies, particularly higher education. The committee is also serving the Legislature by creating additional expertise among its members in examining issues related to capital budgeting. As a result, the justifications which institutions must provide in support of their capital improvements requests are subject to much closer scrutiny than in the past.

A third area of concern has been in the area of deferred maintenance. Accusations that institutions have been consciously deferring maintenance projects under the assumption that they will eventually become problems of sufficient magnitude to be dealt with out of a capital improvement budget rather than an operating budget may not be justified. Rather, it seems that what has occurred is that due to the substantial expansion of the post-secondary education physical plant over the past twenty years, there have been

insufficient funds available to engage in all the necessary maintenance projects on the campus. When students are beating at the doors, it is necessary to hire faculty to teach them and put a bucket under the leaky roof rather than forego the hiring of faculty and repair the roof. The lack of a precise definition of deferred maintenance makes the magnitude of the deferred maintenance problem at public institutions uncertain. I suspect that within the near future it will become an increasingly major problem unless corrective measures are initiated.

Again, I do question whether this is a conscious strategy on the part of institutions or if it represents a lack of resources available in their operating budgets. In addition, this problem is not unrelated to that previously discussed and seems to call for the institutions to develop corrective as well as preventive maintenance schedules which can be shared with state officials to acquaint them with institutional needs and resources. Since in many budgeting systems operating budget increases are the result of some percentage increase applied to a base, the magnitude of the deferred maintenance problem is not clearly recognized at the state level. Also, since many of the buildings constructed in response to the enrollment pressures of the 1960s approach their twentieth year of occupancy, additional maintenance resources are likely to be required. This underscores the need for a state legislature to have information which can be used to justify the institutional requests for additional funds for maintenance as opposed to simply responding to requested overall percentage increases in the operating budget.

Another budget issue in the general area of capital outlay relates to equipment repair, replacement, and acquisition. As institutions were rapidly expanding their enrollments in the late 1960s and early 1970s, additional facilities were coming on-line almost every year. Included in the construction costs of these facilities were funds for movable equipment. In addition, the higher education community already looks upon this period as the halcyon days of federal funding. The federal government provided grants and research projects which enabled the universities to purchase enormous inventories of research and instructional equipment. However, we are now entering a period when there will be little new construction and federal funding will probably be severely curtailed. The impact of this upon equipment budgets of institutions could be dramatic.

Many current problems appear to have occurred because the institutions, in the receipt of new equipment (either through new construction or from some other source), have failed to include appropriate allowances for the ongoing maintenance, repair, and eventual replacement of such equipment. These items of equipment have been added into the institutional inventory with no proportionate increase in the institution's operating budget to absorb

their ongoing costs. Only now are institutions seriously beginning to propose amortization schedules and request additional funds for their operating budgets for ongoing equipment costs.

The above problems reflect some of the budget issues facing postsecondary education in the relationship between capital and operating budgets. We are in the process of moving from a period where the primary institutional problem is one of allocation of increasing resources to a period where the primary institutional problem is one of allocation of increasing resources to a period where the primary institutional problem will be one of management of stable or declining resources. However, the types of problems identified above may not so much reflect deficiencies in the budgeting system itself as in the quality of the decisions made by individuals operating under the system. Many of the problems now, problems associated with anticipated enrollment declines for example, are issues which should have been talked about in a period of expansion (unless one felt that the expansion would never cease). What we are observing is an environment in which the legislature is now expected to evaluate the internal allocations which institutions made over the past twenty years when legislatures were told that the internal allocations of an institution were really none of their concern. We are leaving a period when budgets have been volume and program related and entering a period in which legislatures are being told that other considerations are overriding. This period, the 1980s, will be typified by a greater recognition of the true costs (particularly the fixed costs) of operating an institution of higher education, with diminished attention given to the impact of marginal incremental costs.

Based on the foregoing discussion, following are several observations which should be highlighted.

1. Traditional budgeting mechanisms using general formulas no longer appear to be adequate justification for institutional requests.
2. Greater recognition by institutions needs to be given to the ongoing, fixed costs of institutional operations.
3. In regard to legislative budget requests, institutions must develop new approaches which clearly illustrate their needs and assist the legislatures in the realistic assessment of these needs.
4. Legislatures will require increasingly greater specificity and detail in the justification of institutional budget requests.
5. Legislatures will probably become more directly involved in questions of inter- and intra-institutional resource allocation.

Based on these observations, I have one proposal which may relieve some of the pressures noted in the areas of deferred maintenance and equipment repair and replacement. This proposed solution may already be in place in

some states, and because of peculiarities of the budgeting process in other states, such a solution may not be appropriate.

In Kansas most operating funds are appropriated to an institution from the state general fund. These appropriations lapse at the end of a fiscal year unless specifically reappropriated. In the appropriation bills, line appropriations are made for salaries and wages and other operating expenditures. The remaining funds for the educational and general operations of the institutions are made up of restricted fees (such as federal grants and research contracts) and funds from the general fees fund (tuition revenues). Since state general fund money lapses at the end of any given fiscal year, and since general fees fund balances normally are reappropriated to lower the burden on the state general fund in the succeeding fiscal year, institutions have no incentive or, perhaps more precisely, no mechanism by which they can put money aside for ongoing maintenance and repair projects for which they may not have sufficient resources in a given fiscal year.

The Kansas experience has been that, due to institutional policy and normal personnel turnover, institutions seldom find it necessary to spend all of their budgeted funds for salaries and wages on personnel costs. As a result, these funds are expended for equipment, books, and other materials in the "end of year spending spree." Part of this spending is the result of a conscious policy to hold certain funds in reserve for emergencies with the intention that if the emergencies do not materialize, the funds will be expended for equipment. This is not unplanned. The point is that under present budgeting and appropriations systems institutions have incentives and legal requirements to spend all of the funds they receive for operations for a fiscal year within that fiscal year. Institutions do not typically have mechanisms for carrying these funds forward into the next fiscal year with the assurance that they can be used for purposes deemed appropriate by the institutions.

The proposal I offer is that either by appropriations practice or statutory revisions, accounts be created which will allow institutions to retain any savings at the end of a fiscal year and carry the balances forward into subsequent fiscal years. Expenditures from such accounts could be subject to the proviso or statutory requirement that they be made only for items of capital equipment or for certain major repairs and maintenance projects.

This type of approach would allow institutions an opportunity to retain any unintended operating savings with the knowledge that these funds could be used for the institutions' capital replacement. It would allow them an opportunity to defer purchase of certain lower cost (and perhaps lower priority items) with the knowledge that a higher priority (and more expensive piece of equipment) could be purchased in a subsequent year. This would

provide institutions with a specific financial incentive to create savings within their operating budgets in order to increase their capital stock.

Realistically, the amount which could be deposited in such accounts would vary greatly from year to year and from institution to institution. The legislature may also question the appropriateness of the operating budget if substantial amounts are transferred to this account annually. However, in recognition that some intended and unintended savings do occur within institutions, this mechanism would provide a manner of directing these savings into the capital budget process.

This approach would by no means be a panacea for the capital equipment problems facing public universities. However, it could afford an opportunity to contribute more to their capital equipment development than the present system allows. As operating budgets become more constrained, it is unlikely that significant amounts could be credited to such accounts. Nevertheless, any effort on the part of institutions in this regard might be viewed favorably by state legislatures. Further, the opportunity to internally set priorities spanning several fiscal years would be welcomed by institutional administrators.

To some, these remarks may have painted an extremely depressing picture of the future. Such scare phrases as *fiscal austerity, constrained resources, enrollment declines, legislative intrusions into institutional autonomy,* and *financial exigency* seem symptomatic of a "Chicken Little" approach to problem solving. In this context, what is needed is not recrimination, accusations, or despair. Rather, the problems need to be recognized, identified, and addressed.

State legislatures are not insensitive to the needs of higher education with regard to the types of problems discussed above. So too, institutions should not be insensitive to the political and fiscal constraints on state legislatures. With increased awareness of the problems confronting each group and a willingness on the part of each to work with the other toward mutually acceptable solutions, the higher education resource will be maintained. However, we should not expect this to be a simple or painless process, for as we know from Gresham's Law:

> Trivial matters are handled promptly;
> important matters are never resolved.

CHAPTER 11

Compensation Issues

Factors Impacting on Compensation

Terry Peterson

A number of factors influence the appropriation process in the General Assembly and Governor's Office in South Carolina. These factors have direct implication for faculty salaries and compensation plans in higher education. This discussion will focus only on those factors that work against a substantial improvement in the compensation for higher education faculty. Most of these factors are playing a role in many states or will be in the future.

Four broad categories of factors work against substantial increases in the appropriations for higher education and allocation for the compensation of higher education faculty.

1. There is increased pressure to reduce the general level of funding of higher education relative to other functional areas. In other words, there is increased pressure to reduce the share of the state's appropriation allocated to higher education.
2. There is less likelihood that the increase in the total state appropriations will be much more than inflation. There is a greater possibility now than in the previous decade that the buying power of the total state appropriations will be less from one year to the next.
3. There is the potential that a number of noninstructional costs will continue to erode funds away from instruction and compensation for faculty within the higher education functional area.
4. There are certain approaches occasionally utilized by college and university faculty members and staff that create a nonpositive attitude toward higher education among some state government leaders.

Several factors in each of these broad categories will be discussed.

Stabilizing, and in some instances declining, enrollments will cause policy makers to consider a reduction in the share of the state's budget allocated for higher education in order to meet other demands and needs in a state. This does not necessarily mean a reduction in the absolute dollar amount of the appropriation for higher education, but any increase may be less than the increase in the rate of inflation.

At the same time enrollments are stabilizing or declining, the pressure for substantial salary raises is increasing among state employees who want greater parity with faculty salaries in higher education. Pressure is especially mounting from public employees in similar job classifications, some of which contain more employees than found in the faculty ranks of higher education.

One frequent comparison made is between the average faculty salary in elementary and secondary schools and average faculty salary in colleges and universities. For example, last year in South Carolina the average faculty salary in colleges and universities was 50 percent higher than the average faculty salary in elementary and secondary schools. Although the job responsibilities are different, more publicity than before is given to two items:

1. Faculty members in higher education are working fewer days a year than faculty members in elementary and secondary education.
2. They are teaching fewer hours per week than faculty members in elementary and secondary schools.

In the past, there has been an implicit and in some cases explicit agreement between faculty members in higher education and faculty members in elementary and secondary schools to avoid direct competition for a state's resources. The agreement is breaking down.

Another example of the move for parity is the imposition of a limit on salary increases. Last year in South Carolina a limit of $3,000 was imposed on salary increases. The limit has the impact of reducing the differential between full professor salaries and other faculty and staff salaries.

Mandated state and federal programs are requiring additional appropriations thereby reducing the available state funds for higher education. The Education of All Handicapped Act, 94-142, requires more services than are provided from federal appropriation. To fill the void between the requirements of 94-142 and the level of federal appropriation, a state appropriation is needed.

Court ordered or state mandated improvements in corrections and mental health are requiring additional state appropriations. Likewise court mandated or state passed school finance reform plans for elementary and secondary schools require new state appropriations.

Programs in areas other than higher education are increasing in gubernatorial and legislative popularity. Programs and services for the elderly will probably increase as retired citizens become a greater numerical and political force in many states.

All of these factors have the tendency to draw possible appropriations from higher education and from the compensation of higher education faculty and staff. Many states are implementing tax and spending limitation proposals. Obviously, these propositions are intended to reduce the growth of the total state government appropriations. If the goal of these propositions is reached, more competition among various needs will naturally emerge for the limited state resources.

In addition to the emergence of tax and spending limitation propositions, tax-cutting proposals are increasing in popularity in various states. Income tax indexing, energy credits, and additional exclusions of various items from the sales tax will reduce, at least in the short run, state revenues.

Property tax reduction proposals are also continuing in their popularity. The immediate, direct impact of property tax cuts will be to reduce available revenues for local government programs. However, state revenues will frequently be tapped to minimize the level of local government service reduction from the property tax cuts, decreasing the available revenues for typically funded state programs such as compensation for higher education faculty.

All of the factors mentioned above, at least in the short run, will keep state revenues from growing at rates similar to those we have grown accustomed to in the past and in some instances will reduce the real (noninflated) buying power of a state's total revenues.

The expansion and increasing cost of medical and health education programs reduce the availability of funds for compensation to existing personnel within the higher education appropriation. For instance, in the fourteen Southeastern states the percent of the budget of higher education institutions allocated for health education and related services increased by almost 3 percent during the same period. This trend appears to be continuing in South Carolina and in a number of other states.

Obviously, the rapid increase in energy costs is a problem in almost all public and private service areas. For instance, the energy costs at the University of Michigan increased by 38 percent over the last two years, a 19 percent annual increase. Given the many pressures on state budgets, energy cost increases will very likely have to be absorbed by the higher education institutions, possibly by diverting a portion of any proposed increase in the compensation for higher education faculty.

The construction and major renovation of buildings can reduce the availability of funds for salary increases. Some state government officials perceive that the construction of new buildings is not in competition with

compensation of faculty because construction is a one-time expenditure. Therefore, the decision to construct a new building is not always discussed in terms of the trade-off with reduced compensation for faculty. However, the long-term commitments made for financing, operating, and maintaining new buildings may by default reduce the amount of uncommitted revenues available for the compensation of faculty.

In addition to the many fiscal pressures working to keep the compensation for higher education faculty from increasing rapidly, nonfiscal factors also contribute to this situation. I will call this group of pressures *nonpositive attitudes toward higher education.*

Many higher education associations and organizations are proposing active campaigns to recruit nontraditional students as a means to counteract the decline in traditional student enrollment. These campaigns, articulated in many journals, newsletters, and speeches, do not impress favorably some state government leaders who are charged with overall budget preparation. These leaders are faced with many competing needs and limited, sometimes shrinking, state revenues. A move by a major public sector such as higher education to increase its nontraditional clientele in this tight fiscal time, as well as in a time of increased interest in quality, does not win the support of some key state government leaders.

Another factor contributing to a nonpositive attitude by some state leaders toward a major increase in funding for higher education is the use of the threat of raising tuition if the state legislature does not provide an adequate increase in funding for higher education. This technique by itself is obviously not looked upon favorably by some state government leaders. When this approach is combined with blaming the legislature and governor's office for the necessity of raising tuition after a reasonable increase in appropriation is granted, higher education will suffer decreased long-range support.

Requests by higher education for substantial increases in operational and capital expenditures which are out of proportion with existing revenues certainly do not build a positive attitude toward higher education. For example, collectively the colleges and universities in South Carolina initially requested several hundred new employees in their 1981-82 budget requests. The request was made only a few months after a tax and spending limitation was placed on future South Carolina budgets. The main issue used to pass the limitation statute was the previous rapid growth in state employees. Creating an unrealistic budgetary expectation among students, alumni, and staff will develop negative feelings among some state leaders.

Another factor contributing to nonpositive attitudes toward increased higher education funding and compensation is the occasional lack of a

favorable response to requests by state policy makers for advice and technical assistance from higher education faculty and staff. At times such requests are met with demands for grants or consultant fees to carry out the analysis, research, or technical assistance. At the same time, the higher education institutions may be publicizing how important and extensive their public service component is to the future of their region or state. This type of situation adds to a nonpositive attitude toward improved compensation for faculty.

Many pressures create support for increased appropriation for higher education and improved compensation for higher education faculty as well. However, this discussion was intended to focus on developing an awareness and understanding of the pressures which work against a substantial increase in appropriation for higher education and against meaningful compensation improvements for higher education faculty.

CHAPTER 12

Quality Issues

What Quality Means

Frank Bowen

We all try to define quality, but in the past there has been no clear relationship between dollars and quality. It was often assumed that the higher the cost, the higher the quality. During the 1980s clarification of this relationship will be essential. Dollars will be scarce, and allocation must be precise.

Quality is defined every day in operations at campuses. Graduate education, certainly at the research level, is defined by peer review and by the placement of graduates. Problems are encountered at the undergraduate level or in areas of graduate education at the masters level in many regional colleges. In these instances we must rely on peer review at the campus level. Discussions of quality by faculty may be included in discussions of campus plans and missions.

In implementing any plan or program, there are certain qualifications, and there is a reality to dollars. Decisions are based on these criteria. The difficulties of reconciling quality and scarce resources can be met through

adequate program review processes on campuses, a group of people at a single location with a single mission deciding how they will use the resources they have. The relationship between the mission, the plan, resources, and faculty and staff should be emphasized. Eliminating programs will not meet financial cutbacks. The only way to save money is to fire the faculty member, and that is a very difficult thing to do, especially since the faculty member and program are very closely related. When resources are tight, dollars cannot be reallocated from one program or institution to another without considering what those dollars are really buying. Every faculty member represents a piece of a program, but decisions must be made on the merits of the program.

It is necessary to work toward an objective. It is not just a matter of coping or survival but of managing for a reason. Regardless of fiscal stringencies, regardless of what happens to state revenues or enrollments, there is going to be a continuing need for new knowledge, and money will have to be taken from other programs.

The catalog description of an institution probably gives the clearest picture of the campus and its faculty and students. It is a snapshot of the goals and missions of that institution. A protracted period of bargaining and compromise has put together this jigsaw that is the catalog and the existing programs. When an existing program is changed, consolidated, or terminated, a piece of that jigsaw is removed, and everything else has to readjust. It is a real threat, not only to the faculty in that particular program but to the whole institution, because you are upsetting a way of life.

Multicampus systems or state higher education systems really can do little about the quality issues. They must try to assure themselves that campuses are doing the types of reviews that take into account the plans, the staffing, and various missions that are required in that institution. To some extent they also might have to assure the legislature and the governor that this is being done. However, it will still be necessary for a campus to be extremely flexible since, in general, dollars are going to continue to be in short supply and will be distributed primarily on the basis of campus enrollment. In the past good programs could be rewarded with formal or informal discretionary funds, and it was not necessary to penalize a program of lower quality or lower priority in order to do that. In the coming years the campuses are going to have to take money away from poor programs to reward somebody for having a good one, or maybe they will even have to take money away from a good program to put it in another program that either is of better quality or higher priority because it is essential to the mission.

One necessary element during this fiscal crisis is trust. To accomplish the reallocations that are going to be necessary to preserve quality, to get people managing for a purpose rather than just surviving, the states have to retain

confidence in the campus, faculty, and staff, and in their good intent and the belief that they will make the hard decisions necessary to maintain instructional quality. They can be relied upon to do that if they know that the budgetary or other resource decisions will follow reasonably from what they recommend. Faculty and staff do judge quality; they have done it for many years, and they can be trusted to continue to do it in these tough times if a little confidence in what they are doing is demonstrated.

An Institutional Perspective

Neil Bucklew

The general theme of interaction between states and institutions in formulating financing policies incorporates critical and yet complex issues facing higher education. It challenges us to consider the shared responsibility of institutions and states to support the development of human resources. It is not a question of being for quality or against quality, nor is it as simple as whether you are for or against fiscal responsibility. Rather the question should deal with how states and institutions can work together to assure quality educational programs and yet deal effectively with an area of tightening resources.

I would like to offer some observations regarding this question from the perspective of a university chief academic officer and executive vice president. These observations may be considered as proposed themes for providing educational programs of quality in the context of stringent funding.

Strategic Planning

Institutions must assess their program offerings in the context of their institutional strengths and the educational needs of society. This requires a comprehensive campus process (strategic planning) which involves

1. program-based analysis of past practice and reasonable aspirations,
2. program goals that met a set of criteria such as
    a. institutional established strengths
    b. educational need (verified)
    c. avoids unnecessary duplication
    d. cost effectiveness
    e. consistency with institutional mission,
3. a process that involves major constituents of the campus with a major role provided for faculty,

4. a process that incorporates program development and resource decisions (unrealistic planning is not planning),
5. the responsibility to carry out this strategic program planning in a context informed by state coordinating offices, state resource predictions, developments by other institutions, etc.

Without this institutional commitment to program management through comprehensive strategic planning, we find ourselves drifting toward crisis management. States have a right to expect thoughtful management by institutions; states have a responsibility to provide a resource context that permits good management to occur.

Program Development

Institutions must respond to the changing nature of educational demand by extending quality educational opportunities. The phrase *lifelong learning* describes the commitment to serve a broader spectrum of learners than the traditional college-age students.

The motivation in part might be to use traditional university resources differently since the traditional market of students is declining. The general impact and critical result of lifelong learning is the opening of the university and the extension of educational opportunity to the career-bound and family-bound individual. It is a good change, and one to be encouraged.

The prime examples of shoddy practices in this new lifelong learning endeavor have resulted from institutions responding to an educational interest or need that was beyond their capability, resources, and geographic service area. The sin of omission is present in the midst of these failures. The traditional university is just beginning to accept the responsibility of extending quality educational opportunity to the nontraditional learner.

The state has a responsibility to assure that general quality levels are maintained in these efforts. The best way to assure this is to encourage lifelong learning developments by the traditional institutions. Quality of program is important to the faculty of the university, and they will carry out the same quality control off campus as on campus. That new forms of delivery for existing programs be accomplished with attention to quality is a reasonable expectation by the state and a mandatory assumption by the institution.

States must not permit the decline of traditional college-age students to become a self-fulfilling reason for the general decline of support for educational opportunity. It is a reasonable response to changing citizen interest in educational opportunity to encourage traditional university resources to be diverted to underserved educational needs.

Reallocation

We are clearly no longer in an era of steady growth of resources for higher education. For most of us it is a time of tight budgets. It is also an era of changing demands and needs for education opportunity. Universities must learn to do more things with the same or even diminishing resources. This is a new and frustrating parameter. It is also challenging and has the potential to result in a broader base of educational opportunity than ever experienced in the United States.

Institutions can reallocate. They must establish priorities and implement clear processes for reallocation. Most of the resources for new programs will need to be diverted from traditional activities. Some institutions are starting to accomplish these ends. For example, there is increased attention to strategic planning and staff retraining and reassignment. States have a right to expect state support and encouragement for such efforts.

Proposed have been three themes which represent a perspective on how to address quality in educational opportunity in the midst of tight fiscal times. Each theme is a challenge to the institution and represents a new way of doing business.

— Strategic Planning
— Program Development for New Types of Students
— Reallocation of Resources

The ability of these themes to be generally incorporated in higher education is contingent on two phenomenon.

— The willingness of the institution to accept these concepts.
— The willingness of the state to encourage these developments by the institutions.

Neither can or will occur alone. We are at a time when, contrary to much rhetoric, we need institutional leaders who are prepared to be effective managers and state leaders who are prepared to expect and encourage quality educational opportunity.

A State Perspective

Robert Huff

Virtually all of the enrollment forecasts for the coming decade indicate that the number of students at all types of institutions will sharply decrease. While this situation may not be as marked in the sun-belt states or in flagship research universities, these institutions and locales will not be totally exempt from the effects of a changing pattern of populations and age groups. Given that the traditional methods of setting budget levels for institutions of higher education have been determined at least in part by the number of full-time-equivalent students enrolled, it would seem that the justification for future budgets that continue to show increases will be extremely difficult. With inflation at 12 percent or higher, the consequences of a budget that holds nearly steady in terms of actual dollars, or in some cases even decreases, are indeed serious. Those concerned with institutional planning and budgeting must necessarily begin to think in very concrete terms about how to deal with the steady-state and how to develop budget strategies that will enable institutions not only to survive but to thrive in such an environment.

The time of steady-state or even declining enrollments may actually offer opportunities for institutions which have long sought to improve the quality of their educational offerings and activities. Institutions that have felt the annual effect of burgeoning enrollments have frequently found that even with increasing budgets the new discretionary dollars are automatically consumed by the purchase of necessary additional personal services, equipment, and facilities to accommodate the new students. This situation has frequently prevented the vigorous pursuit of quality improvement since the immediate realities of accepting and educating additional students have been given the highest priority. If, as the number of students enrolled remains steady or declines, institutional budgets can remain steady-state or better yet increase to keep pace with inflation, the prospect of pursuing quality will be greatly enhanced. While dollars expended do not necessarily buy quality, most of the features of a quality institution cost money. In the minds of most educators the development of quality programs is inextricably linked to increased financing. Experience would indicate that this is not a fallacious perception.

Unfortunately, many educational institutions have worked very hard over the years to persuade legislators and regents alike that the number of dollars in the budget should be linked in a linear fashion to the number of students enrolled in their institutions. With ever-increasing enrollments this approach to formula funding has worked to the advantage of the institutions. Few people could be found who were looking for economies of scale or talking about the marginal dollar increases in costs as enrollments moved upward.

Now, however, as enrollments decline and legislators expect that budgets should also decline in a linear fashion precisely opposite to the upward movement of years past, loud protests are heard from campuses, far and wide. Now we hear that the marginal savings of smaller enrollments are somewhat less on the way down than the marginal increase in costs on the way up. Diseconomies of scale in the operation of institutions of higher learning are widely proclaimed. In fact, in cutting back there are tremendous difficulties and problems that were simply not involved in the growth pattern. So we have painted ourselves into a corner and now must proclaim that the funding formulas which were constructed so rigidly as to forestall tampering in the time of enrollment growth are now invalid and must be replaced by different funding methods.

Had we developed funding formulas that were truly flexible and well understood during the past decade, they could have served throughout the period of the 80s. A funding formula serves to identify the key funding factors which should be considered by those who must allocate state resources. If we had been careful to educate legislators and regents to the fact that the funding factors need to be adjusted and evaluated anew each year to reflect changing conditions, we might have been successful in defining the needed adjustments to our formulas that would reflect the true diseconomies of scale in a time of declining enrollments. No matter how often we explain that lower enrollments necessitate a lower student-teacher ratio, the message seems to be discredited by our past rigidity, and we are caught on our own petard.

Since a new funding approach is required, the search has been launched throughout the land. Behold, the new approach turns out to be traditional incremental budgeting in which the base level of funding is held to be unassailable, and the only meaningful discussion in which institutions wish to engage is the amount of incremental funding to cover inflation and improvements. The Arizona Board of Regents has never used a strict funding formula. Thus, the Arizona university system is in a better position than many to deal with the budgeting process necessitated by steady-state enrollments. The Arizona Board of Regents has adopted an incremental budgeting philosophy that utilizes the following steps.

1. The base budget in each of six programs (instruction, research, public service, academic support, student services, and institutional support) is considered and analyzed to determine if it is adequate for the ongoing programs and tasks at hand. The extent to which reallocation within each of the programs on each of the campuses can be used to meet new or changing needs must be established by Regent judgement before requests for incremental funding are considered.
2. On each of the campuses the various departments and budget units develop what are called decision packages. These are simply requests

for additional resources beyond the base funding to meet specific needs or pursue specific improvements. Each of the decision packages is placed in a priority ranking by institutional personnel.

3. A Regent subcommittee considers all of the decision packages that survive the institutional prioritization and determine a systemwide priority ranking for the requests.
4. With a view to available resources, the Regents develop a budget request for the executive budget office and the legislature that they feel is justifiable on the basis of the analysis of the base funding and the description of the specific improvements that are sought through the various decision packages.
5. One-time expenditures contained within the decision package requests are identified by the Regents in order that the base funding that will become the starting point for the next budget cycle will not be unduly inflated by expenditures that are not ongoing in nature.
6. Institutional officers are expected to meet as many of their additional needs as possible through reallocation within the currently existing institutional budgets.

During discussion with the Board of Regents, institutional administrators are asked to provide justification for each of their decision packages. Inevitably the best justifications have to do with improving quality in a wide variety of programs and activities. The question of precisely what constitutes quality and how it is pursued and obtained must be answered. If one accepts the point of view that quality consists of doing many individual tasks and providing many individual services in an exemplary manner, then a clear understanding of the pursuit of quality can be obtained. It is frequently the case that quality is discussed in broad general terms rather than in terms of specific actions or the fulfillment of specific responsibilities. Such generalized descriptions of quality will not provide the guidance that regents or legislators need in understanding how the budget process can stimulate and enhance the quality performance of an institution.

The perception that doing many individual things well will produce a quality institution will set the stage for a meaningful budgetary process. Adding one quality building block on top of another over a period of time will stimulate a synergistic result that will provide an institution with not only the image but the reality of quality. In such a process the quality goal is not only kept in the spotlight but is used as an effective justification for the budgetary requests for the individual institutions. In addition, the development of decision packages in pursuit of quality provides a built-in performance audit trail for those who demand accountability of institutions and a justification for past budget increases.

Anyone who has spent a significant period of time around colleges and universities could make a list of some of the specifics of a quality institution. Undoubtedly, quality is in the eye of the beholder. It is probably true, however, that general agreement on some aspects of a list of quality performances would not be difficult to obtain. Listed below is one brief table of quality indicators set in juxtaposition to the mirror image of nonquality performance. This partial list is the work of only one individual considering the development of quality indicators for a relatively few minutes. It is undoubtedly myopic, incomplete, and biased by personal philosophy. Someone else with a somewhat different philosophy and set of experiences would undoubtedly construct a different table of quality measures that might be far more useful to a specific institution or state system. Thus, the list provided below is offered as a stimulant to those who wish to think about this subject rather than as a definitive outline of quality indicators.

INSTRUCTION

Quality is:

Knowledgeable, interested teachers	—	not graduate assistants pressed to do most undergraduate teaching
State of the art equipment	—	not leftovers donated by industry as tax write offs
Faculty release time to seek a well-planned curriculum	—	not a hodge-podge of courses dictated by the narrow interests of faculty
Student accessibility to faculty	—	not office hours that are seldom kept
Effective evaluation of teaching	—	not twenty-year-old courses taught from yellow notes
Faculty salaries sufficient to keep morale and initiative high	—	not the call for faculty to be dedicated, like priests
Superstar faculty sprinkled throughout—opportunity hiring	—	not any warm body with a Ph.D. that will come cheap
Enough travel money to broaden faculty horizons—especially for young faculty	—	not an isolationist policy based on ultraconservative economics

RESEARCH AND PUBLIC SERVICE

Quality is:

Freedom to pursue pure as well as applied research—seed money for research	—	not a demand for immediate economic benefit from each project
Faculty who can relate research to the real world	—	not stopping with ivory tower thoughts

Laboratories and centers that provide the base for attracting quality research projects	—	not faculty forced to do their experiments in a damp corner of the boiler room
Direct links with industry and government	—	not distain for the profit motive and political process
Research projects that feed and support teaching and use graduate students	—	not separation of research faculty from teaching faculty
Continuing education courses of the same quality as campus offerings	—	not second-rate offerings that exchange a grade for a dollar and an FTE count

ACADEMIC SUPPORT

Quality is:

Adequate library collections in all fields	—	not bare bones, archaic collections
Adequate library hours and study spaces	—	not lights out at 9:00 p.m.
Computer availability for students as well as faculty	—	not hour-long lines to get to a keypunch or to get help in preparing data
Academic counseling by knowledgeable, interested professionals	—	not merely handing a student a catalog and saying "good luck buddy"
Having and providing the best audio-visual equipment to the classrooms	—	not just a blackboard and a piece of chalk or locking up the department overhead projector because some careless faculty member might damage it.

STUDENT SERVICES

Quality is:

Adequate dormitories and housing above the poverty level	—	not the university as a slum landlord
A wide variety of cultural events	—	not only those events that make money
Intramural athletics for all who want to participate	—	not the sacrifice of intramural activities and resources to support the intercollegiate program for the alumni and fans
Recreation facilities to enhance the use of leisure time	—	not reliance on the local pub as the only center for student social life
An effective job placement program serving all fields of study	—	not interview schedules only for high demand majors—engineers, accountants

A financial-aid office that works for the benefit of all students	—	not an attitude of promoting all warm bodies into the classroom in order to up the FTE count, frequently leaving failure and debt
and yes— Remedial instruction for those who need it	—	not simply blaming the high schools

INSTITUTIONAL SUPPORT

Quality is:

Leadership from top executives	—	not just a caretaker, status-quo approach
Fiscal control systems that work and provide management information useful for evaluation and planning throughout the campus	—	not a dread of change and fear of data that might reveal the need for change
Admission and registration processes that are convenient and maximize student scheduling opportunities	—	not long lines, nor the setting of class schedules to meet faculty needs instead of student needs
Adequate physical facilities that are safe, clean, and accessible to the handicapped	—	not deferred maintenance, nor rented storefronts
Clean, attractive grounds	—	not a campus littered with old student newspapers and with weeds along the fences
Parking structures and transportation systems that provide convenient access to students and faculty alike	—	not a resignation to traffic and parking chaos

The above list contains thirty-two quality measures. Review of the individual items indicates that at least twenty-five of these require money for implementation. Thus the consideration of quality and its pursuit leads again to the inevitable conclusion that an adequate budget is a prerequisite for the development of a quality educational institution.

Reaching a definition of desirable activities that will improve the quality performance of an institution is a far cry from actual implementation of those actions and activities even if the money is available. Three key words pertaining to the pursuit of a quality institution are *aspiration, inspiration,* and *perspiration.* First, at the helm of an institution there must be those individuals with the foresight and vision that will enable them to develop an aspiration for the kind of institution and outcomes commensurate with the basic mission and purpose of their campus. Having identified the ideal to which one should aspire, the next step is to find the inspiration necessary to

identify the specific steps that may be taken one after another to go from point A to point B along the quality path. Finally, having aspired and then been inspired to define the critical path, there must be the willingness to perspire during the inevitably difficult and trying task of implementation. Too often we find the vision to aspire and the inspiration about what should be done but are unable to find the courage or workable tactics that will bring actual implementation.

A major theme of this paper has been that those who would pursue quality must never stay aloof from the budget process. Conversely, those who are in charge of the budget process should constantly keep the quality issue clearly in mind. In a time of declining enrollments and steady-state budgets, those who effectively pursue quality will have to tell many ardent professionals and persuasive internal politicians that they cannot have scarce resources to do those things that they deem highly desirable. Many individuals will have to be told that institutional priorities dictate that the limited resources must go to other more pressing needs. This is the point at which the science of management must be coupled skillfully with the art of administration.

Those who are successful in developing quality institutions during steady-state times must be tough-minded and thick-skinned. They may also be in constant jeopardy in terms of their own professional survival. The next decade will be a time for risk takers. Those administrators who fit that category may be invaluable to their institutions. Many administrators are viewing the 80s with a feeling of dread and trepidation. This need not necessarily be the case and in fact, for the astute and courageous, it may be an exciting time during which real progress can be made.

PART V

SPECIAL PROBLEMS OF TWO-YEAR COLLEGES

Introduction

This panel was organized to present a number of institutional perspectives on the fiscal problems confronting two-year colleges in the 1980s. The panel was sponsored by NAGUBO and its moderator, Mr. A.W. Flowers, is a member of NACUBO's Financial Management Committee. The panel included presentations by Mr. A.W. Flowers from Maricopa County Community Colleges, Mr. Gordon Wooley from Riverside Community College, Ms. Suzanne Dye from Merritt College, and Ms. Barbara Extine from Olympia Technical College of Bremerton.

CHAPTER 13

Maricopa County Community College, Arizona

A.M. Flowers

The Maricopa County Community College District encompasses over 9,000 square miles and is served by seven colleges which produce in excess of 63,000 headcount or 29,500 full-time-equivalents (15 semester hours credit = 1 FTE). Following is a case study of the district.

Source of Funds

Federal	$ 5,542,354	(6.5 percent)
State	23,140,950	(27.3 percent)
Local	56,192,149	(66.2 percent)
	$84,875,453	(100.0 percent)

General Fund—$56,695,000

State	28.6 percent
Local	57.1 percent
Tuition	6.3 percent

Other 8.0 percent
(original concept—50 percent state and 50 percent local)

Funding

State—Capital		$135/FTSE/Year
	Operational	1st 1,000 FTSE-$680/FTSE
		over 1,000 FTSE-$440/FTSE
	Operational-vocational	
		1st 1,000 FTSE-$272/FTSE
		over 1,000 FTSE-$176/FTSE
Local—Tax levy		
Tuition		

Governing Board (Local)

five members, elected by precinct

Governance (State)

Appointive Board of seventeen members

Funding Problems

1. Original concept of funding (50 percent state/50 percent local) has been seriously eroded, placing greater burden on local sources.
2. In the June 3, 1980, election, the voters passed a plan (as a result of a special legislative session) which placed somewhat severe limitations upon expenditures and very severe limitations upon revenue (forcing tuition increases).
3. In the November 4, 1980, election, a copy of California's Proposition 13 was presented to the voters and was defeated.
4. Rapid expansion with an open-door policy now causes severe funding problems. Phoenix, Arizona is one of the fastest growing areas of population in the nation.
5. Local authority is being eroded. The state may be a source of additional funding in the future, but this will cause severe loss of local control.
6. Funding of such areas as athletics and developmental education are being carefully examined, internally and externally.
7. Tuition increases are being examined (when does tuition become too high in terms of driving out those who need the two-year schooling most?).

Budgeting Issues

1. The district is essentially decentralized with budgetary compilation and administration at the college level (what measurements of efficiency are available for true evaluation?).

2. Lump sum allocations are made to colleges based upon program offerings and allocations per FTSE, day and evening separately.
3. Priority setting (involvement internally? involvement externally?).
4. Incentive system (when a college does not expend total allocation, it receives a portion—determined by the chancellor—of the unexpended allocation in the following fiscal year which is in addition to the basic allocation).
5. Cost Accounting system in place is a sophisticated system which is based upon expenditure per FTSE. The lowest element of cost is broken down into four components, each expressed in dollars expended per student credit hour generated.

Immediate Problems

1. To determine an acceptable method of ascertaining priorities in such a manner as to be able to eliminate services as may be necessary.
2. To determine more efficient methods of resource allocation and reallocation.

Additional Issues/Remarks

1. Actual Savings versus Expenditure Levels

   It appears through investigation that expenditure levels are predetermined based almost entirely upon revenue generation. Actual savings are almost nonexistent.
2. Investment versus Expense
   In many cases front-end expenditures result in future savings or more efficient use of resources. Such front-end funding should be portrayed as an investment internally and externally.
3. Quality Measures
   Almost nothing of significance has been produced. This is another myth but must become a reality. For example, an Illinois study tended to prove that quality was being measured and was accepted as a basis for increased salary justification. What really changed between professor and student?
4. Increased Productivity
   What is it, and how can it be measured in a significant manner? The only comparative data we have are largely noninstructional in nature.
5. Budget Reductions
   Generally, percentage decreases are instituted across the board to all departments and divisions. This causes the inefficient to suffer least and tends to keep those functions which should be eliminated. If programs are eliminated, the costly ones are generally attacked. This may be counterproductive to the mission of the institution.

CHAPTER 14

Fort Steilacoom Community College, Washington

Jack Asby

The Washington State Higher Education System is truly a state-funded system. Neither the two- nor four-year institutions can levy property tax to support operations. A uniform tuition is collected at each campus, but the entire amount is transferred to the State Treasurer. Increased tuition revenues generated by growth are not recognized as a plus for the institution generating the additional FTEs. Student lab fee collections or other locally-generated revenues are used as offsets of formula-generated state appropriations.

Funding for the Washington community college system is determined by formula. A fully automated, computerized model is used to generate formula results. The formula covers each of the major operating areas—instruction, libraries, student services, plant operations and maintenance, and institutional support (administration and general expense). The following summarizes the formula-driven budget models used for both defining resource needs for the purpose of legislative budget requests and for distributing resources among twenty-two community college districts.

The resource requirements defined by the various budget formulas reflect certain operating standards such as ratios of students to faculty, square feet serviced per custodian, maintenance per dollar of building replacement cost, etc. Although the standards have generally been accepted as reasonable by executive and legislative funding decision-makers, scarcity of resources has resulted in substantial segments of the budget model being funded at less than 100 percent of formula. When used by the community college system in seeking legislative appropriations, decisions must be made regarding the level of support (percent of formula) to be requested. Similarly, the legislative appropriations may vary from the support levels requested by the colleges. When used to distribute resources among the colleges, requirements for each institution are computed at 100 percent of formula provision, but where legislative appropriations for a particular activity are below 100 percent of formula, the allocations to each of the districts must be reduced accordingly. In 1980 the formula was funded at 72 percent of formula.

Instructional Program Formula

The greatest resource need is for the direct instruction of students. The instructional formula provides funds for faculty and faculty supervision, supporting personnel utilized in the instructional area, and for the supplies and equipment required in the conduct of academic and vocational programs.

The number of students and their distribution over the various instructional disciplines are the primary determinants of resource needs for instruction.

Through studies of actual community college experience, student-faculty ratios have been determined at the four-digit HEGIS course code levels. In addition, average costs per full-time-equivalent student have also been established for supporting staff and nonlabor expenditures for each major cluster of courses in the HEGIS taxonomy (two-digit HEGIS).

Enrollment projections are established (contracted) for each district as the primary driver for the instructional formulas. Variation in the composition of district instructional programs is recognized through the use of differentiated student-faculty ratios and instructional support costs for courses falling into the various HEGIS clusters. In addition, formula procedures are designed to minimize differences in faculty salary schedules by funding faculty positions at lower rates in districts where faculty salaries are higher than average and at higher rates where salaries are below average. This is accomplished through the use of a hypothetical salary schedule that identifies such differences.

Library and Learning Resource Center Formula

There are two major components of the library model.

1. A provision of resources for the acquisition and maintenance of library collection units.
2. Provision for the professional and support staff and operating costs needed to make library resources available.

The library formula contains some fixed elements provided to all colleges and variable elements that relate primarily to the numbers of students and faculty in an institution.

Plant Operation and Maintenance Formula

This formula provides maintenance funds to cover staffing and nonlabor costs for the following seven major activities.

1. Building Maintenance
2. Janitorial Services
3. Grounds Maintenance
4. Utilities and Utilities Maintenance
5. Administration
6. Police, Fire and Safety
7. Trucking Services

Differences among districts arise from building construction, campus sizes, landscaping intensity, and enrollment variances.

Building square footage and acreage adjusted for known changes and annual average student headcounts key the plant operation and maintenance programs to each district entitlement. Building maintenance requirements are based upon the premise that maintenance expense is related to current replacement cost of buildings.

Janitorial needs are based upon a specific number of square feet of building space per employee. Janitorial nonlabor operating costs are based upon an amount per janitorial position. Grounds maintenance is related to the acreage of each district and the degree and intensity of landscaping. Utility costs are computed from actual square footage utility costs in relation to the facilities that are being operated. Other formulas based on square footage, numbers of students and staff, and total plant operating costs are used to generate a provision for administration; police, fire and safety; and trucking services. An amount for building rentals is based upon actual and projected rental commitments for each district.

Student Services Formula

The student services formula provides a basic complement of staff regardless of college size. Beyond that, it allows for a variable staff requirement related to the size of headcount student enrollments. In computing the variable staffing component, off-campus student enrollments are discounted to 68 percent of their value on the assumption that such students cannot avail themselves of services to the same degree as on-campus enrollees. Nonlabor operating costs are related to total staff dollar requirements based upon the historical relationship that one has borne to the other.

Institutional Support Formula

Requirements for institutional administrative and general expense functions are based upon a variety of fixed and variable staff determinations. Separate formulas are used for basic administration staff plus personnel in such support functions as purchasing, cashiering, payroll, personnel, and budgeting, accounting, and reporting. Nonlabor operating costs are then provided in their historical relationship to total dollar requirements for staffing.

Data Inputs and Sources

The Washington community college system has established a series of management information reports which provide extensive data on students, courses, physical facilities, vocational programs, faculty and staff personnel, and equipment inventories. These management information system (MIS)

reports are the source of much of the data needed to run the operating budget models. Some additional information, not provided from these sources, is solicited from the districts whenever budget requests or budget allocations are to be made.

Formulas used in the state of Washington are not intended to guarantee certain amounts which will automatically be appropriated by the Legislature. The Washington approach uses a measuring stick system where the formula factors do not change but the support levels do. For example, in the late 1960s the faculty staffing portion of the instructional formula was budgeted at approximately 87 percent of formula. Expanding enrollments and a declining revenue base in the early and mid 1970s has led to the current situation whereby staffing in this area is now in the low 70 percent range, with the exception of certain small community colleges. Reasons for using the measuring stick system include the ability to measure resource allocations over time and the differing need between those directly involved in the program and those concerned with the allocation of resources.

Formulas serve three major purposes.

1. To provide information for making valid funding support comparisons between institutions over extended time periods.
2. To provide a mechanism which will insure reasonable equity in the distribution of available resources among the public four-year institutions and the community college system.
3. To provide for consistent treatment of the four-year institutions and the community college system.

Future Funding

Washington's Governor, by legislative mandate, must submit a balanced budget. Property tax increases to support operations cannot exceed six percent growth per year. The Governor must also operate within the budget. Like many other states, Washington's tax revenues for the current year have fallen below expectations (nearly 10 percent). As a result, higher education has been requested to reduce its current year's operation by 5 percent. We are told to expect additional cuts of 10 to 12 percent for 1981-82. Other states are facing similar reductions, but few states are experiencing the population growth rate that Washington has, a growth of 25 percent (1980 preliminary census data) since 1970.

The current funding formula, while providing for a fixed base and special provisions for small campuses, appears to favor growth institutions. There are flooring provisions to minimize drastic one-time enrollment decreases, but campuses experiencing a continued enrollment decrease have real difficulty.

The Council for Postsecondary Education, Washington's higher education coordinating body, has recommended a major tuition increase to be phased in over a two-year period. This may not help higher education in general, or growth institutions in particular, unless all or at least a major portion of the tuition increase remains at the campus level. Currently all higher education tuition revenue reverts to the State general operating fund. The council has recommended a major portion of it stay at the campus level.

PART VI

INSTITUTIONAL RESPONSES TO FINANCIAL STRESS

CHAPTER 15

The California Study

Frank Bowen and Lyman Glenny

As an outgrowth of an earlier study of retrenchment—sudden financial stress—in five eastern and midwestern states (Bowen and Glenny, 1976), the California Postsecondary Education Commission requested a description of the responses of ten fairly representative public California institutions to enrollment and financial stress. The ten-campus study was presented to the Commission in 1980 and included a list of indicators of financial or enrollment stress. Based on interviews and other sources, this list of some thirty-five indicators was also presented to the California Commission under the title *Signals for Change* (Glenny and Bowen, 1980).

In considering procedures to employ in this study, there were initial doubts about obtaining useful, but sensitive, information. One early task was to convince respondents that we were, in fact, independent contractors. A second was to assure confidentiality in any publicly disseminated report. We met these two problems, successfully we believe, by asking the chief executive officers of the ten campuses in the study to comprise an advisory panel to review the study's design, instrumentation, and results. Although it would be an exaggeration to report that we were greeted with open arms at all ten campuses, early suspicion—and some hositlity—had been dissipated by the time of the interviews.

A third difficulty in studying response to stress is that the most interesting and important data are subjective and often ambiguous. The *truth* is the result of many perspectives, and we were concerned about the difficulty of deriving a reasonably accurate resultant from the interviews. To obtain some assurance, we prepared minicase studies of each campus, presenting relevant quantitative data and our candid judgments about the campuses' response to

stress—for example, our belief that the campus was risking dilution of academic program quality by over-reliance on attrition of faculty to adjust staffing imbalances. These confidential minicase studies were sent to the campus chief executives for review and criticism. We found the exercise very useful; indeed, administrators at two campuses subsequently shared the reports with their campus constituencies as part of their planning processes.

In the ten-campus study we were not asked to make recommendations, and the smallness of the sample of institutions could not really support them. We did, however, make a number of observations about the responses. These include:

1. Pervasive uncertainty,
2. Reluctant leaders,
3. Erosion of flexibility,
4. Faculty attrition as a remedy,
5. Classification of responses, and
6. Priority needs: procedures and criteria.

Pervasive Uncertainty

Our ten-campus study began with the intent of identifying fairly detailed results of reduced funding or enrollment at each of the institutions: How did programs, services, and staffing actually change between one year and the next? We did not follow up on this intent. In part, we could not for perhaps three reasons.

1. We were dealing with three radically different multicampus systems—the university, the state university, and the community colleges.
2. We underestimated the extent to which the institutions varied within the systems in accounting for and administering funds and personnel.
3. The impact of stress was so diffuse within each campus that tracing it in any quantitative fashion would have been an almost endless task and ultimately probably not very useful.

These practical difficulties, however, were secondary to the discovery at the inception of the interviews that the specific responses to stress appeared less consequential than did the current and prospective instability—the uncertainty—of the overall environment. The major causes of this uncertainty are only too well known by all: declining enrollment pools and shifts in the ethnic composition of those pools, inflation, increasing and sometimes conflicting governmental demands for accountability, collective bargaining or its prospect, the apparent tax revolt on the part of the public, and changing student curricular interests.

These and other factors, the national and local economic picture for example, are threads in a seamless web of pervasive uncertainty that confounds institutional planning, even planning in the narrowest sense of scheduling next year's classes. It is proper, of course, to speak of institutional response to stress, but to understand the response, one must bear in mind that individuals make that response and that their reactions to uncertainty are critical.

> Senior administrators must give increased time and attention to personnel and funding questions that previously could be left to routine regulation by middle managers. Some middle-management positions are early victims of reductions. Some managers who remain may be neither willing nor able to deal with ambiguity. The senior administrators not only have more difficult problems, but there are more problems of all kinds. Ironically, one of the first things to be lost under stress is the very thing needed in helping relieve it: unstructured administrative time for internal planning, analysis, and communication.
>
> Faculty cannot be kept as fully or as currently informed as administrators about all of the factors that make up the uncertain environment. Moreover, they are not employed, as are administrators, to resolve uncertainties. At least at the onset, institutional initiative may be frozen as faculty react to uncertainty by withdrawing into departmental "circles of wagons" to defend their turf against all comers.

Uncertainty is a vague concept, but it is a valuable one for discussion of response to stress, primarily because the number and variety of its facets are too great for attribution to any particular individual or agency. The assumption that the environment of colleges and universities is out of control is a dismal one, but it seems useful in two respects.

First, the umbrella concept of uncertainty discourages the vain hope that there is a panacea for the 1980s. The troubles that almost all institutions are likely to face will not be ended by reforming or changing any one particular aspect of structure or process. Second, the resolution of uncertainty is everyone's concern. Uncertainty cannot be blamed on anyone "up there," "down there," or "out there." Each organization with responsibility for higher education, from academic departments to legislative committees, must look to its own activities for relief from stress.

Reluctant Leaders

The number of eighteen to twenty-five year olds in California is expected to drop from 2.9 million in 1984 to 2.5 million in 1992, a decline of some 15

percent. The demographic decline may be compounded by increasing numbers of high school dropouts and by lower participation rates among the growing proportion of blacks and Hispanics in the pool of those who do graduate. The facts and trends have been widely discussed, but at only one of the ten campuses in our study did we find any public—or even private—concession that the statewide projections might have an impact on enrollments at these particular institutions.

Admittedly, no one was so dogmatic as to state that "it can't happen here," but we were not impressed by some reasons given for assuming stable—or more often, "gradually increasing"—enrollment levels. We were told, for example, on a number of campuses that the size of the traditional college-age group was a minor factor because the average age of students was twenty-six years or more. At the only campus that did project an enrollment decline, the average student age of twenty-six was considered less relevant than the median age of twenty-three. At that campus the most relevant statistic for planning was that over 75 percent of full-time students were 21 years old or younger.

All administrators and many faculty attributed lack of plans for stress to the dangers of a self-fulfilling prophecy, concern that however bad conditions might become the immediate impact of widespread alarm at the campus would be worse. Sometimes this concern was expressed as fear that faculty would be paralyzed into lack of cooperation; some campuses feared that "good" faculty would desert the ship; other campuses had been "once burned" by the trauma, effort, and cost of ordering program priorities for expected reductions only to have later "bail-outs" render the difficult exercise a vain one. Finally, it would be both unkind and untrue to attribute reluctance to administrative hope for "peace in our time," but it would be misleading to ignore this possible motive.

Concerns about almost inevitable campus disruption, wasted time, and impaired credibility are not trivial. These concerns should encourage preparation for possible adversity, not prevent it. The timing of procedures, the nature and extent of consultation, and the rate and impact of specific program changes should evince awareness of the dangers of self-fulfilling prophecies but should not be deferred because of those dangers.

In their public debate, Fred Crossland and Carol Frances have caught the attention of higher education. Crossland (1980, p. 18) appears a doomsayer who argues that institutions face inevitable enrollment losses. Frances, on the other hand (1980, p. 19), seems the eternal optimist who suggests rising enrollments in the 1980s.* We suggest a middle ground that is less contro-

*We doubt whether either author would disagree over the value of contingent planning even though they might take different views of the probabilities of the contingencies involved.

versial than these extremes. Contingency planning allows campuses to plan for stable or even increasing enrollments, but it also prepares for an uncertain decade by "a systematic attempt to analyze and prepare for future outcomes that are probable if" those plans fail (University of California Planning Committee, 1979, p.6).* A contingency plan is not a self-fulfilling prophecy. Without contingency plans crises will be unavoidable, and crisis paranoia will generally prohibit rational response. Moreover, the longer that contingency planning is delayed, the fewer the options—even irrational ones—that will be available.

Erosion of Flexibility

Colleges and universities require what theorists call—to the despair of practicing administrators—*organizational slack*. Oliver Wendell Holmes put it more pragmatically when he said that a machine will not run without a little play in the joints. Historically, higher education institutions have had little fiscal slack in the shape of formal discretionary funds. They have managed to maintain flexibility through budgetary or salary savings and through the incremental difference between the marginal costs of additional students and the average costs on which state funding formulas were generally based. In addition, programmatic flexibility was often gained by employment of part-time or temporary faculty.

At the campuses we visited, flexibility of any kind was in short supply. Vacant positions had been sacrificed to meet earlier budgetary shortfalls. Such salary or savings as remained were supplementing the inroads of inflation on essential services. There was little, if any, enrollment growth to produce the incremental benefit of average cost funding. Part-time faculty were concentrated in the most popular and heavily enrolled areas. Many service programs had been "nickel and dimed" down to bare subsistance levels as rates of state funding had slowed in prior years.

Eroded flexibility reduces the options available to a campus faced with stress, and administrators are forced to make difficult decisions. A single example should suffice. Funds for supplies are a prime target for reductions at the initial stages of stress; cutbacks at that time are likely to have little impact on instruction. Departmental storerooms—like army supply rooms—are usually filled with items purchased earlier "just in case," sometimes simply to avoid recapture of unspent dollars by the state, but these hoards are quickly depleted. At one campus we found faculty purchasing out of their own pockets chemicals required for instruction. They could not be expected to do this indefinitely. However instructional quality might be defined, it includes

*This report defines *strategic planning* as an effort to avoid the probable outcomes were "future events simply allowed to run their course." *Contingency* plans become effective if the *strategic* plans fail (Univerity of California Joint Planning Committee, 1979, p. 5).

supplies and equipment as well as instructors. Vital elements of instructional support must be protected even though they lack tenure or collective bargaining rights.

Faculty Attrition as a Remedy

When the amount, extent, and duration of funding or enrollment changes are all unclear, preserving the jobs of existing faculty makes some sense. It permits an institution to secure its primary resource, its faculty. Equipment, supplies, and other nonacademic services can be reduced on a temporary basis with some risk to flexibility but without immediate damage to instruction. Protection of faculty jobs may be not only an appropriate response to a short-term crisis, but it may be the only one possible within the time allowed.

Reliance on attrition to resolve longer-term issues of enrollment shifts and probable declines in the 1980s presents far graver risks than such reliance in a crisis. The first time that faculty jobs are protected by reductions in other areas the action is consistent with institutional missions and objectives as these are reflected in currently offered programs. This consistency will be lost over time as vacancies occur on a random basis and new needs exert pressure for program changes. Continued reliance on attrition can have other adverse effects.

1. Instructors may be reassigned to teach in secondary areas of specialization. If the instructor is qualified and brought current in the secondary area, reassignment can be beneficial to both instructor and program. On the other hand, if the instructor is not clearly qualified, the program, the students, and ultimately the instructor will suffer.
2. Overall institutional flexibility to meet recurring enrollment or financial crises will be lost as temporary or part-time positions are sacrificed to protect permanent ones.
3. Making do with existing faculty may become a habit that delays establishment of rigorous program review and planning procedures. There is a positive attaction in making do, for reliance on attrition evokes blind justice in its dependence on random vacancies in faculty ranks. In this period of our history when distrust of organizational or establishment decisions is widespread, blind justice for individuals may substitute for informed judgment about programs.

Adjustment by attrition is often defended as a humanitarian course in contrast to adjustment which emphasizes program needs. There is some truth in this defense, but as noted in a faculty bulletin, the ultimate necessity is "preserving human beings . . . not just their physical presence." Faculty relief at learning that their jobs will not be abruptly terminated will give way

over time to discontent over inequitable workloads, the inability of strong programs to grow, and the realization by some faculty whose jobs have been saved that they are merely marking time and lack a personal and professional role at their campus.

The almost universal priority given to the preservation of faculty jobs at the expense of virtually everything else led us to question the usual classification of responses to stress.

Classification of Responses

The predominant response to financial stress, of course, must be reductions in expenditures, and these reductions have commonly been seen as either selective or across-the-board (Bowen and Glenny, 1976, p. 17; Balderston, 1974, p. 226). This dichotomy is more useful for classifying reductions at the statewide level than at individual campuses. At most institutions, some units are so small that any across-the-board reduction would select them for termination. Moreover, personnel decisions, particularly those about faculty—are critical at the local level. At the statewide level, positions are impersonal, unspecialized, and treated as fungible. We found it difficult to identify responses at particular campuses as either primarily across-the-board or selective and devised our own classification with five categories.

1. **Operational responses** that are intended to relieve immediate stress. Across-the-board reductions would be included here as would targets of opportunity—vacant positions, building maintenance, travel expense, and the like. These responses are generally seen by administrators as temporary and as having little or no impact on instruction.

2. **Programmatic responses that have little impact on faculty.** These may or may not be seen as responsive to any immediate crisis, but they are more likely than are operational responses to be seen as having longer-term implications for the programs concerned.

3. **Faculty adjustments that rely primarily on attrition** to adjust staffing of instructional programs to reduced funding or lower enrollments.

4. **Faculty adjustments that rely primarily on program considerations** to adjust staffing of instructional programs to reduced funding or lower enrollments.

5. **Procedural responses** that are themselves determined by conditions of stress and are also the means of determining other responses.

This classification is offered with the hope that it might be useful elsewhere but with the warning that at least two additional factors or dimensions must be taken into account. Time factors are highly relevant, and a second and obvious factor would be the severity of enrollment or financial decline. Both factors must mediate attempts to understand continuing response to stress over time.

Priority Needs: Procedures and Criteria

Our ten-campus study concluded by observing that all institutions should have planning and program review procedures to determine program priorities and faculty staffing levels. In these procedures, questions of faculty relocation, reassignment, retraining, and layoff should be explicitly raised by review criteria.

Our emphasis on local procedures was not based on any naive expectation that substantive response would inevitably be better or more rational. Procedures are only as effective as the people who use them. Yet procedures are critical as a response to stress, and in preparation for it, because individual institutions can use them to impose a little order on the otherwise shapeless threat of uncertainty. A procedural link between curricular substance, continuity or change, and faculty staffing is almost the only factor that is subject to control; uncertainty surrounds virtually all other aspects of higher education.

Both the quality of the program and personnel decisions during the coming times of trouble and their acceptability to internal and external constituencies will depend largely on the procedures through which decisions are made. Established procedures and known criteria for decisions can subsantially reduce the dangers of self-fulfilling prophecies. At most campuses, administrators and faculty can still establish these procedures before questions of layoff arise. Operational criteria based on campus academic plans can be discussed and reviewed fully in other than a crisis situation. There is time to examine fully such constraints as may be imposed by law, state policy, or collective bargaining.

We did not and could not give one right answer to the question of what procedures and criteria should be established. The interviews did suggest desirable characteristics, however, and eight of these are of particular interest.

1. The campus or college mission should be so stated that it provides guidance to planning and program review.
2. There should be a forum for annual discussion of all current issues concerning instructional plans and programs. The forum should be as broadly participatory as the environment of the particular

campus permits. It should be seen as advisory to the chief executive officer but not simply as an extension of his office.

3. Budgetary procedures, decisions, and allocations should be subordinate to and follow planning and program decisions.
4. Budgetary procedures should stress annual recapture of some funds for redistribution, and procedures for redistribution should be linked to the results of planning processes and program reviews to the extent possible.
5. Planning processes and program reviews should address appropriate staffing levels from an institutionwide perspective. Although recommendations on precise staffing levels should be sought explicitly, decisions about individual faculty and staff should be reserved to the chief executive officer and administrative processes.
6. Campus administrators should support faculty interest and participation in planning and program review procedures to the extent feasible, particularly in providing quantitative data and assisting in their analyses. It is not clear how, if at all, faculty should participate in budgetary procedures to the extent that these are distinct from the planning and program review procedures.
7. Program reviews by individual campuses for internal use should not be used by state agencies or multicampus central offices for comparisons among institutions. Answers to questions of statewide or systemwide coordination and governance generally will be found only if studies are designed for the express purpose of obtaining them.
8. A file of all current documents relating to planning and budgeting and their outcomes should be available to all faculty, students, and staff at a convenient location.

In conclusion, let me say that we believe the vast majority of administrators and faculty wish to offer the highest possible quality of instruction. We are also convinced that those who teach and are close to the teaching at the campuses are the best judges of the quality of what is taught and how it is taught. In our judgment, the best assurance that instructional quality will not sink under the waves of financial stress will come from harnessing energy and good intent at the campus level. Rigorous assessment of program quality is required. Honest determination of program priorities under operational planning criteria is required. Equitable and realistic faculty staffing is required. Procedures and criteria will not assure quality, but they can be a forum, arena, or context in which institutional faculty and staff can be honest, rigorous, and equitable. It is upon these people at each campus that educational quality ultimately depends.

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CHAPTER 16

Perspectives From an Institutional Setting

William Vandament

Fiscal, access, and quality problems anticipated because of shrinking numbers of traditional college-age people have often been addressed. I will recap these themes from the perspective of an institutional financial officer.

Our concerns in these areas have been magnified by the knowledge that the impact of this demographic fact of life will be distributed unevenly across the nation's postsecondary institutions. Those institutions in northern industrial states will face—indeed are already experiencing—a continuing out-migration of potential students to southern and western states in addition to the direct effects of a lower national birthrate. Also, one can predict with certainty that institutions with less historical drawing power than average will suffer dramatic reductions in enrollment while others may show negligible changes. We have already seen this market selection at work in recent years, resulting in the closing of some institutions.

Financial experts in higher education, in colleges and universities, and on state boards are making considerable progress in defining costs which do not change directly in proportion to enrollment levels and in projecting funding levels which must be maintained for the survival of institutions and programs. The new techniques being developed should not only improve methods used to project appropriate funding levels for colleges and universities but also should have a positive effect on internal costing information available to institutions. At the same time, however, the definition of separate fixed and variable costs carries with it the temptation for state agencies to move increasingly to line-item control over institutional budgets. Movement in this direction would, however, diminish needed institutional flexibility and simultaneously reduce institutional incentives for achieving savings in budget categories that are not immediately responsive to enrollment changes.

Beyond technical questions about the funding of higher education during a period of decline, there remain broader policy issues which must be addressed. These include:

1. How much erosion in support should be required of institutions with strong market demand in order to maintain those institutions facing declining enrollments?
2. At what point is the continued existence of a program or a college or university no longer feasible?
3. Should state coordinating boards or legislatures intrude in the student's choices of institutions by limiting enrollments at colleges and universities with strong student demand?

Those universities and colleges that are immune to enrollment declines should support state actions that protect access to higher education by aiding institutions serving clientele who would otherwise be denied higher education opportunities. At the same time, state boards should avoid direct intervention that would limit student choice. Also, actions that would dilute the quality of viable institutions by protecting declining institutions beyond reasonable levels when public access to higher education is not threatened must be resisted. All colleges and universities exist to serve the public. Survival itself must not become the primary mission of a college or university, particularly with the blessing and assistance of a state coordinating board or legislature. The future decisions that must be made by some state boards are indeed difficult and will be the subject of intense political pressure.

Institutions must work hard to reduce wasteful program duplication, and coordinating boards should invoke moral and public pressure on institutions to do this when they are slow to react. Such pressure will help institutional administrations counter any resistance raised within the institution. At the same time, state coordinating boards must acknowledge that unilateral board

sanctions to decertify programs will surely result in confrontation and renewed battles over institutional autonomy. There are no winners in these encounters. However, a statewide process of independent peer review, publicly reported, can do much to hasten the demise of weak or unnecessary programs. State boards are clearly in the best position to ensure the necessary openness and independence of such reviews.

We have also struggled in these times of fiscal stress over the problems of identifying and encouraging quality in higher education. Despite the difficulties in defining and measuring quality, we must not imitate the Oscar Wilde character who knew the price of everything and the value of nothing. What is the worth of a poem, a musical composition, an insight into a natural process, or the liberation of a mind through the analytical and synthesizing tools of an academic discipline? Though we cannot assign a quantitative value to such things, we know that they are worthy and must be fostered.

We also know that quality is affected by such things as a faculty who have adequate time to be creative and to counsel students, labo-atories that are well-equipped, and facilities that are well-kept and attractive. In short, while strong financial support alone is not adequate to achieve quality, it is a necessary condition.

State governments and coordinating boards must not become so preoccupied with concerns about efficiency that quality is allowed to erode. Institutions must acknowledge that money spent without proper attention cannot produce quality and that the concept of quality must include some reference to the human value added to students through their educational experiences. We sometimes fall into the trap of assuming that quality exists only in institutions that are selective in their admissions practices—a serious error which ignores the fact that the primary purpose of education is to change people, not to measure and select them.

The distribution of decision-making authority among institutions, coordinating boards, and state government also has been a recurring topic. We have been warned of a national movement toward increased surveillance and interference in institutional affairs by government, noting that such activities can diminish the creative energies of a college or university administration. In addition, we have been warned that continued government intrusion into institutional affairs can discourage our most capable people from assuming, or continuing, administrative careers in the nation's colleges and universities. Of course, it would be tragic if our institutions were gradually turned over to the "walking dead" whose chief function was to take orders from outside and pass them on to their institutions. A sobering thought occurs: is this process already at work, and did institutional representatives obtain their positions

by default? Let us not dwell on this possibility but move instead to consider where we go from here.

Psychiatrists and psychologists have known for some time about a behavior phenomenon they have labeled *institutionalization* which sometimes occurs in mental patients who have been hospitalized for a long period of time. The symptoms—a flattening of emotional expression, the occurrence of mechanical smiles and gestures, and obedience to all instructions—can mask the fact that the patient has recovered from the original mental state that made hospitalization necessary. Patients showing these symptoms have merely adapted to the demands of their current environment and traded one set of symptoms for another. They are, however, no less disabled when faced with the challenges of the normal world.

College and university administrators must at all costs fight off any tendencies toward symptoms of institutionalization. Coordinating boards can help by encouraging local initiatives and resisting the temptation to attempt control over every college or universty action. A recurring plea by institutional administrators has been that coordinating boards place greater emphasis on the postaudit of institutional activities as a superior method of achieving accountability to the public. This postaudit can be most effective if it focuses on the results of university actions rather than process. It is not possible to create rules and procedures that will anticipate and prevent every institutional action reflecting bad judgment or evil intent. A bad university administrator can find bad things to do that cannot be anticipated. It is possible to create procedures which erode creative institutional management.

Institutional administrators must demonstrate that they are worthy of the trust of coordinating boards and must avoid the trap of attributing all shortcomings to outside forces. We have much to do to improve the quality of institutional management, and we must find ways to define better the conditions which will allow a college or university to survive difficult times. We have accepted as an article of faith that institutional flexibility is most important during times of fiscal stringency. We must now demonstrate to others why this is true and make certain that we use the flexibility we have to protect the future capability of our institutions to serve the public.

We are keenly aware that a natural state of tension exists between institutions and coordinating boards; it is an immutable fact. Rufus Miles, now at the Woodrow Wilson School of Public and International Affairs following a distinguished federal career, has published a series of "Miles' Maxims" containing striking insights into bureaucratic behavior. His first maxim, from which many principles can be derived, is concise: where you stand depends on where you sit. This simple statement recognizes the inevitable differences that exist between people having different adminis-

trative roles. The effective administrator does not waste time and effort railing against this basic condition of employment but instead attempts to find ways of working with colleagues having varied interests and roles.

The existence of a capable adversary is a valued gift because it prompts one to respond with extra effort and thus to give a better performance. Perhaps we can capitalize on our differing perspectives to sharpen our skills in the common purpose of providing access to quality education for the public we all serve.

CHAPTER 17

Reducing Conflict Between State Boards and Institutions

Larry Leslie

My task is to attempt to reconcile the differing perspectives of the state and the institutional position regarding financing policies: why do reasonable persons belonging to different organizational levels in the higher education enterprise view that enterprise so differently? Why is there conflict among these levels? Perhaps an understanding of the reasons for these differing perspectives will advance the cause of higher education, and this is our goal, regardless of our differences.

This paper will discuss the differing perspectives and portray the organizational milieus within which they develop. In doing this it will describe the organizational models within which institutional and state-level leadership operate. Finally, it will discuss the implications of these varying perspectives and models in terms of concrete policy issues—that is, how these differences manifest themselves in institutional-state conflicts.

Many readers have known persons who, as institutional administrators, have often failed to appreciate what the state governing or coordinating board was "doing for their institution," but later assumed state-level responsibilities and found it nearly impossible to comprehend why the institutions did not realize that they were the institutions' friend. One could suggest simplistic explanations to the question of why boards and institutions view higher education financing policy differently, and those simplistic answers in part would be valid. For example, the self-interests of state boards and institutions are different: and there is a struggle for power between the two levels involved, but these are only superficial explanations. I will explore the underlying conceptual factors, factors which are rooted in organization theory.

The environment within which the board and institutional representatives operate must be examined in conceptual terms. The most important and fundamental understandings to have in this regard are:

1. There is no single model from organization theory operating for all of higher education, and
2. The models are quite different for boards and for institutions.

Herein lies the answer to the question of why these organizations have differing perspectives, but first to the matter of there being more than a single overall theoretical model for higher education.

In the early days of the development of higher education as a field of study, one of the most universal issues was "what kind of organization is a university?" A WICHE conference on this subject was held in about 1964. Some of the presenters held that the university was a *bureaucracy* with a hierarchical authority structure, explicit position descriptions independent of the position holders themselves, impersonal relations of the organization members, written and codified rules and regulations, and a high degree of specialization of functions. Others insisted that the university was a *professional* or *collegial* organization characterized by a flat authority structure, position descriptions essentially inseparable from the persons filling the positions, highly personal relations among the members, few written rules and regulations, and though considerable specialization of function also a broad commonality in the essence of those functions.

The person whose arguments carried the day in that early debate, however, was one who separated the university into two parts: the logistical, support, or staff side and the academic side. He pointed out that indeed essentially all those parts of the university that on the organization chart do not connect directly with the teaching units are primarily bureaucratic in nature, whereas the teaching units are best described for purposes of analytical clarity as collegial in nature.

Clearly, one may not generalize to all of higher education from the university. The academic units of community and state colleges, for example, often do not fit the collegial model very well although their staff offices do tend to fit the bureaucratic model fairly concisely.

The point, however, is that one may understand rather clearly from this why academics and nonacademic support staff often fail to see eye-to-eye. They operate under almost completely different rules because their organizational models are greatly disparate, and here finally is my thesis: boards and institutions have perspectives often at odds with each other because their

purposes are different; therefore, their organization environments and presses are different; and therefore they often go off in different directions.

Since the early 1960s, numerous advances have been made on the conceptualization of the university as an organizational type. There is for example Clark Kerr's conceptualization of the university as a quasi-public utility and Ken Mortimer's concept of academics as a faculty oligarchy, but the model that many theorists seem to find most useful today is Cohen and March's *organized anarchy* (*Leadership and Ambiguity*, 1974).

Cohen and March characterize the American college presidency as a *reactive* role: presidents react to numerous and disparate kinds of pressures (p. 1). But presidents are first of all academics. Almost always they have come up through the academic ranks, and they hold the values and orientations of the academic rather than the manager. "They are recognizable products of academe," say Cohen and March (p. 2).

As academics, presidents understand and are responsive to the role of the organized anarchy in which standard theories of power and choice are inadequate, rendering decision-making ambiguous (pp. 3-4).

This, though, is only the president's *internal* decision-making environment. The president also has an external environment in which he or she must interact, an environment that includes the state board. Conversely, the state board's environment does include the institutions, but the board also operates in a classical political milieu. Visualize two sets, one for the environment of the institution and one for that of the board. These sets intersect somewhat and in this they share some of the same spheres of influence, but they occupy primarily mutually exclusive space; that is, they are responsive to differing forces of differing natures. The college president operates within an organization in which power and authority are not clearly fixed but are diffused among subordinate units. Further, these units must seek to serve the interests of both faculty who are locally and those who are nationally oriented. The conclusion one reaches from this scenario is that institutional level leadership is guided by a set of interests that is ambiguous and diffuse. No single orientation, such as "what is good for the state," dictates institutional decision making. It is just not that simple.

The state board's milieu, i.e., its organizational model, is quite different. The model that prevails is far more unitary than the institutional model, and it is overwhelmingly political. The board is directly or indirectly responsible to state political leaders who in turn are more-or-less responsive to local constituencies. Those constituencies generally are perceived to have primarily local or parochial interests—quite a contrast to the institutional actors who

are divergent in their orientation but include those whose first loyalties may be to their disciplines or to a more national reference group.

Turning to the third and most interesting part of the analysis: how do the differences already described manifest themselves in state-institutional differences of opinion, specifically in the formulation of financing policy? Two examples follow.

One of the most important and illustrative of such issues concerns the form of state subsidies to institutions. Limiting our considerations to a simple dichotomous choice, let us consider the block-grant versus formula approach to higher education funding.

From an institutional perspective, the position taken most likely will be quite clear. Almost certainly the "flagship state university" will favor the block-grant approach. This approach not only is more likely to permit this university to target resources on goals that may be of low state (but high faculty) priority, but for reasons that will be seen momentarily, the amount of total resources received most likely will be greater than under the formula approach. Other institutions, on the other hand, will range in enthusiasm from mild to very slight for block-grant funding, depending upon the relative consistency of institutional and faculty goals with state goals and with the number of dollars anticipated from this funding approach. Put another way, the interests of these less enthusiastic (for block-grants) institutions are likely to be more consistent with the interests of political personages in that their interests will be more local or perhaps statewide.

The statewide boards position on state funding forms will emanate from its sense of responsibility to statewide interests and to the interests of their overseers—state politicians.* In short the state board will be considerably more likely to support a formula approach. The reason is that in the allocation of fiscal resources formulas are viewed as fostering equity, promoting objectivity, and reducing political pressures by institutions on legislators. It is the interests of the state, not the institution, to which boards and politicians owe their primary allegiance.

The second example concerns whether a uniform salary schedule, as opposed to a merit salary system, should be maintained. Again, for analytical clarity, let us consider only this dichotomous case.

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*It should be noted here that these are overgeneralizations for purposes of analytical clarity. Further, formulas may be used for analyzing appropriations requests and not for the appropriations themselves.

Although there probably exists less orthodoxy on this question than in the previous example, flagship universities will be inclined to support the merit system rather strongly, as is consistent with their more elitist national and discipline-based orientations. Regional and local colleges and universities, on the other hand, will be less supportive of an elitist system, their traditions being more closely identified with standard rules and regulations, bureaucratic practices, and less decision-making ambiguity than is present in major universities.

State agencies operate under a reward system that clearly is more standardized than exists in most institutions. Insistence is upon such egalitarian principles as "equal pay for equal work" and guarding against the possibilities of favoritism and special treatment. The political priority under which state boards operate is above all one of equity.* Standardized salary schedules cause the least amount of political disturbance and keep the greatest number of people relatively happy the greatest amount of the time. Thus, uniformity reduces pressures on legislators.

In these brief remarks I have tried to shed some light on why reasonable persons with good intentions and high commitments to higher education may differ on important financing policy issues. The hope has been that insights gained may be of value in understanding if not in resolving policy differences. It has been seen that institutional and state leaders operate in quite different organizational milieus. Institutional leaders operate under conditions of considerable ambiguity; their constituencies are diverse and complex. In contrast state leaders operate in an overwhelmingly political environment. Dominant political principles are equity and fairness, the need to minimize conflict, and refraining from giving the impression that any group is receiving favored treatment. Under these conditions, it is little wonder that views of sincere and committed institutional and state leaders often are in conflict or at least at odds.

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*Again, this is an overgeneralization in order to illustrate the point. In fact, many state boards support the merit principle more strongly than do many institutions.

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